

HUMBOLDT COUNTY

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MAP OF HUMBOLDT COUNTY
THE COLORED PORTION SHOWS THE REDWOOD BELT

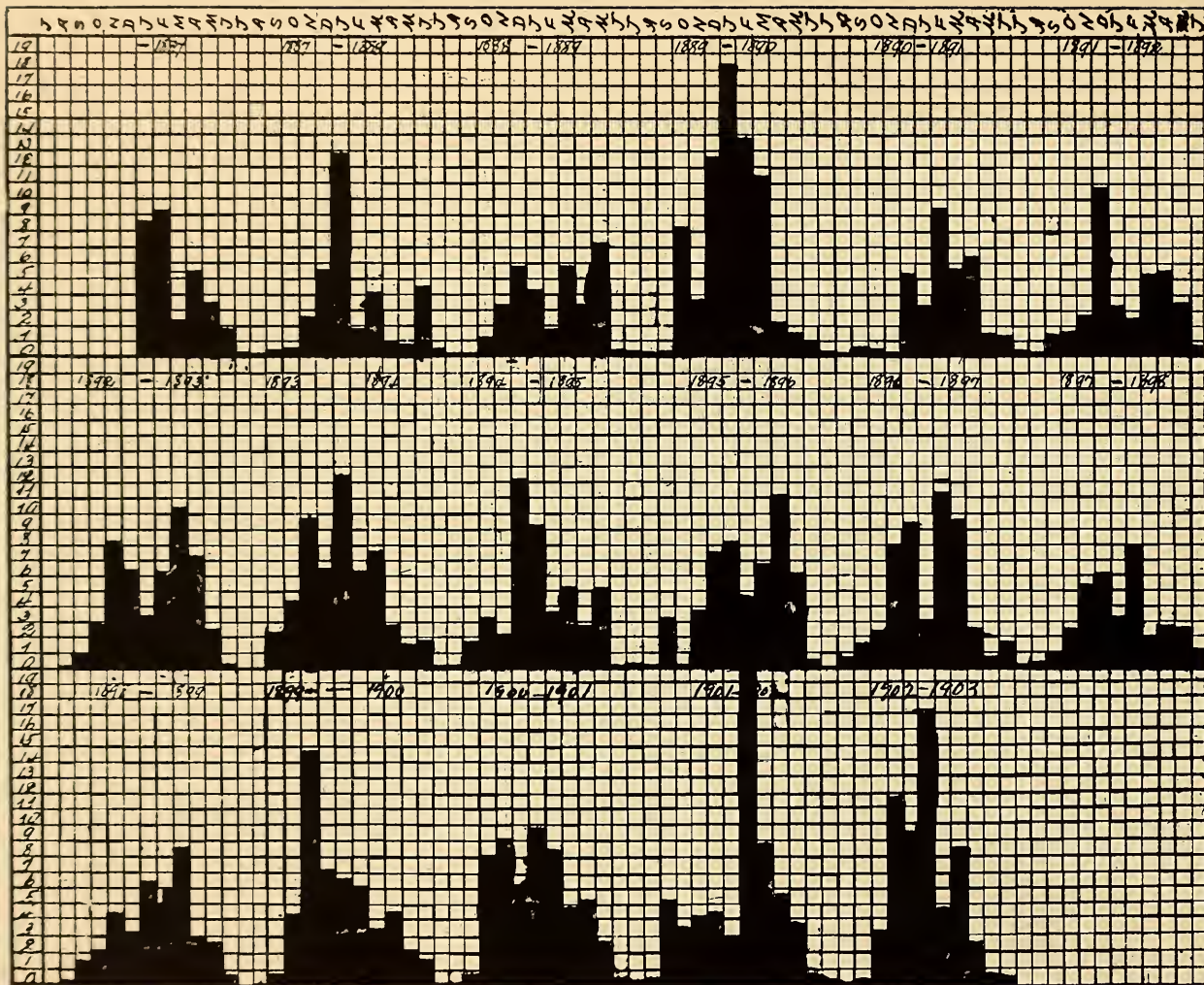


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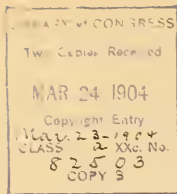
Humboldt County Souvenir

Being a Frank, Fair and Accurate Exposition, Pictorially and Otherwise of the
Resources, Industries and Possibilities of this Magnificent
Section of California

THE TIMES PUBLISHING CO., PRINTERS AND PUBLISHERS, EUREKA, CALIFORNIA.

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1904



FORE-WORD

THE publishers send forth this, the second edition of the Souvenir of Humboldt County, with the confident expectation that it will prove of greater value and be a more important factor in the development of this "Empire of the North" than was the first edition. The latter, both in the direct effect of its distribution and its reception by the public, far exceeded even the hopes of the publishers. Within a few months after its issuance from the press the edition was entirely exhausted, and ever since the calls for it have been constant and unceasing. Not alone do these come from the United States, but also from residents of foreign countries, who evidently have heard of the beauties and advantages of this favored section of California.

The work was received with a degree of favor that was highly gratifying. In the newspaper comment upon it and in the scores of letters from those sending for it, were the highest encomiums, both as to its typographical excellence and the scope and character of the letter-press.

Though this is a second edition of the former work, it is not a reproduction of it. Since that was issued, some two years ago, great changes have taken place, both in the county as a whole and in the City of Eureka. Millions of outside capital have been invested here, and where before there was only hope of rail connection, now we have the spectacle of two great transcontinental systems spending vast sums to reach this territory; and a railroad is assured. Since the Federal census of 1900, Eureka has increased greatly in population. That credited this city with a trifle over 7,000 inhabitants. A census just completed shows a population of over 11,000. Hundreds of residences have been erected, and a number of new and handsome business blocks constructed. Eureka now boasts of an electric street car system, and in many other ways the improvement has been marked and rapid. Necessarily, these many changes have compelled a revision of much of the matter of the first edition and the making of many new half-tone cuts. This revision has been carefully and painstakingly done, and the present edition may be taken to reflect accurately the progress of the past two years and the conditions which now obtain here.


THE HUMBOLDT TIMES.

C S MILNES, Editor and Manager.



COURT HOUSE AT EUREKA

HISTORY

HE identity of those who first gazed upon the green meadows and mighty forests of Humboldt County cannot be definitely determined. Spanish explorers sailed up and down the coast of California hundreds of years ago, but in the records left by them, fact is so intermingled with fiction, as to leave grave doubts, in many instances, as to the points visited. Among the few things that we do know is that in 1579, Sir Francis Drake sailed along the coast of Northern California, and upon the chart which he left is noted the headland which is now known as Cape Menodcino. Vizcaino saw the same point in 1603, and named it Mendocino, in honor of his viceroy, Mendoza. He also discovered, and probably named, Cape Trinidad. In a book published in London in 1671, by Ogilby, "His Majesty's Cosmographer," mention is made of a party of adventurers which sailed along this coast in 1820, touching at Cape Trinidad, and sending a boat ashore at the mouth of a river where there was an Indian village and a large number of canoes. This they named Pueblo de Canoas, "from the abundance of these little boats which the Americans (Indians) generally use, and do call canoes, whereof great stores are made at that place." This undoubtedly referred to the Klamath River, where there were more Indian canoes than at any other point on the Pacific Coast.

In 1755 the Spanish navigator Bodega landed at Trinidad Bay, where he spent nine days surveying the bay and making observations concerning the

tides. In a Russian book published in 1848, it is stated that the Russians came down the coast in 1805 from Sitka, under the leadership of Rezanof, and established themselves at Fort Ross and Bodega Bay. This book states also that about seventeen leagues from the port of Trinidad is situated the entrance to the Bay of Indians. In 1806 there was in the bay under the command of Vintess, a party of Aleutians, from Alaska, who were hunting beaver, under the direction of Slabotchkoff, which was met by the Indians inimically. "This bay somewhat resembles the Bay of San Francisco; only the entrance to it for vessels of large class is not very convenient, and with strong southwest winds it is even impossible with any vessel. The depth at the entrance is two saijhen (about 14 feet) and then it breaks on the bar." The Russian chart, which accompanies the book, clearly delineates the entrance and front of Humboldt Bay as it was at that time.

In 1828, one Jedediah Smith, with eighteen companions, left the Mission Dolores, at San Francisco, for Oregon. The journey was remarkable in that he chose to travel along the coast instead of taking the more open route by way of the Sacramento and Willamette valleys. His party was attacked by Indians near the mouth of the Umpqua, and but four of the party escaped. They ultimately reached Fort Vancouver. Smith River, in Del Norte County, was named for the leader of this party, which almost beyond a doubt, passed through Humboldt County.

Stephen H. Meek, the Oregon pioneer, states that



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William G. Ray, a factor of the Hudson Bay Company, was sent down the coast in 1830 or 1831, to establish stations; and that he entered Humboldt Bay, thinking that it was Drake's Bay, passing close under Table Bluff, and discovering what he called Clearwater Bay.

In 1849, a party of miners at Rich Bay, on the Trinity River, finding themselves without sufficient food for the winter, decided to reach the coast by following the stream to its mouth. The party consisted by Dr. Josiah Gregg, Thomas Seabring, David A. Buck, J. B. Truesdell, Charles C. Southard, Isaac Wilson, L. K. Wood, and Mr. Van Duzen. They started on the fifth of November, and on the 17th, David A. Buck, who was in advance, discovered the South Fork of Trinity. This they followed to its junction with the main Trinity, and then struck across the mountains direct for the coast. They emerged from the forest at the mouth of Little River, forty days from the date of starting. They followed the coast northward to Big Lagoon, and then returned to Trinidad, which they named Gregg's Point, unaware that it had been discovered years previously by Spanish explorers. A few days later, they reached a stream which they named Mad River, because of a disagreement which arose in the party. Dr. Gregg wished to remain and take observations in regard to latitude and longitude. On the 20th of December, David A. Buck, who was as usual in advance of the party, discovered the Bay, and his fellow-travelers named it "Trinity Bay." On the 21st, the party reached the entrance to the bay, and camped, but retraced their steps up the peninsula on the 22d, and camped on the site of Arcata, at a spring, about two hundred yards east of the present plaza. One of the party killing an elk, they had elk meat for their Christmas dinner. On the morning of the 26th they started around

the southern side of the bay, and camped that night upon the site of Bucksport. A few days afterward they continued south, and eventually reached Sonoma. As a result of the great number of eels found there, Eel River was named by this party. The Indian name of this river was Weott, meaning "plenty," the word having direct reference to the great number of salmon caught.

As early as the winter of 1849 and the spring of 1850, the gold mines at the head of several streams flowing westward from Trinity and Siskiyou counties had attracted a large number of miners, who were dependent on the slow and expensive interior route for travel and the transportation of supplies. It was believed that a coast route by water would divert this traffic, and in the hope of discovering coastwise communication with the mines by some navigable stream, several expeditions were fitted out. One of the first was that sent out under the auspices of the Laura Virginia Association. This party left San Francisco in the latter part of March, 1850, with Lieutenant Douglass Ottinger in command. He saw the mouth of Eel River, and anchored about two miles off the bar. The next day three other vessels anchored in the same locality. A small boat from the General Morgan was launched, crossed the bar, and entered the river. Two small boats were then launched from the Laura Virginia, but one of them was capsized, and one of its occupants, J. S. Rowen, was drowned. Captain Ottinger thereupon abandoned the exploration of Eel River, and sailed toward the north. From the mast head the waters of Humboldt Bay were seen, but the bar was breaking heavily, and the entrance was not discovered. Trinidad was reached on the fourth day of April. Here a party consisting of E. H. Howard, H. W. Havens, S. B. Tucker, Robert S. La Mott, L. W. Shaw and a Mr. Peebles, was landed for the purpose



THE COUNTY HOSPITAL

of exploring the bay which had been seen toward the south. At the same time a party consisting of Colonel Graham and eleven others was landed at Trinidad, where they desired to settle. They laid off quarter sections, all of which had a frontage on the beach, and divided the land among the members of the party. They also laid out the town of Trinidad, which they named Warnerville. The Laura Virginia then continued north, and entered the roadstead where Crescent City was subse-

quently located. Here the vessel remained at anchor two days. In the meantime, the party of six came down the coast and camped that night under a tree on the peninsula, at a point near where the light-house was subsequently erected. While the party was gathered about the camp-fire that night the members decided to name the magnificent body of water which lay spread out before them Humboldt Bay, in honor of the distinguished naturalist, Baron von Humboldt. L. W. Shaw, who was

an artist, made a sketch of the bay during the afternoon. The party returned to Trinidad the following day, and the Laura Virginia arrived shortly thereafter. The party of six was taken on board and the vessel returned to the entrance of the Bay. On the following day, which was the 9th of April, 1850, two small boats were launched, and a party consisting of H. H. Buhne, N. Duperu, H. W. Havens, L. M. Burson and E. H. Howard, came over the bar. As it was late in the afternoon, the party camped that night on the north beach, near the small lagoon. Next day it crossed over to Humboldt Point, where a tent was pitched. Fog obscured the sky all day on the 10th, but on the 11th a ship was sighted, and Captain Buhne and his party went out of the north channel, and found the schooner Whiting, anchored off the bar. He went aboard the Laura Virginia, which sailed away to the north in order to avoid the spreading of any knowledge concerning the existence of the bay. Upon the 14th, however, she returned and sailed into the harbor. The members of the party at once commenced surveying the land, staking out quarter sections, and putting up tents and cabins. Lands were located along the shore of the bay, opposite the entrance, covering a shore line of about four miles. Humboldt Point was looked upon as the most central location, and here it was decided to establish a city. An imposing array of tents and buildings soon sprang up, and for a year or more Humboldt City kept in advance of any other town on the bay.

As soon as the survivors of the Josiah Gregg and L. K. Wood party had sufficiently recuperated, they decided to return overland to Humboldt Bay. A party was organized consisting of about thirty members, which reached Humboldt Bay on the 19th of April, 1850. It saw the Laura Virginia in the bay, and purposely avoided

meeting the settlers at Humboldt Point. It reached the bay a short distance below where Eureka now stands, and there left four members to locate a town and make improvements. This place was named in honor of David A. Buck, one of its founders. The remaining members of the party then crossed the bay with the assistance of Indians, and proceeded up the peninsula to a point at the head of the bay, which they reached on the 21st of April. There they located a town, and called it Union. A few days later they came down the bay and located the townsite of Eureka.

Although the members of the Laura Virginia party were the first settlers upon the present site of Eureka, the town was laid out by James T. Ryan and John W. D. F. Davis, in the spring of 1850. Captain Wasgatt assisted in surveying it. James T. Ryan was chosen as the first alcalde or Mayor, and the first Board of Trustees consisted of J. T. Ryan, H. P. Osgood and W. H. Blanchard. The site was at that time covered with heavy timber, which extended to the water-front. There were but twenty-three persons in the town, and but ten houses and tents.

In the early part of 1850, Captain McDowell, who was cruising along the coast in an open whale boat, entered Klamath River, Trinidad Bay, and Humboldt Bay.

In March, 1850, the schooner General Morgan, Captain John Brannan, anchored off the mouth of Eel River, and with two small boats, containing James T. Ryan, Sam Brannan, Messrs. Grithen, Wardell, Redpath, Van Houghton, H. McGrath, and one whose name is not recorded, together with three sailors, landed. They hauled their boats by hand around Table Bluff, and into the bay. They continued on up the coast to Trinidad. The General Morgan was compelled to put to sea because



The Remains of Old Fort Humboldt, Eureka, where General Grant was once Stationed.

of a storm which came up, and a number of the party settled at Trinidad and Eureka. The remaining members of the party took ship at Trinidad for San Francisco.

On July 20, 1850, the schooner Francis Helen sailed from San Francisco for Humboldt Bay with eighteen passengers, among whom were Mrs. Brizard, Madame Durant, J. M. Eddy and Martin White. Members of this party built the first lumber mill in Eureka. It was at first called the Pioneer mill, and later the Papoose mill. The Francis Helen was owned by Ottinger & Brown, and arrived August 1, 1850. Seven laborers were brought who cut piling for a return cargo.

The schooner Susan Wardell entered the bay on February 22, 1851. Among her passengers were Judge A. L. Huestis and family, H. F. Janes and family, J. O. Showers, B. T. Janes and Captain Wasgatt.

One of the pioneer residents of Arcata was Francis Bret Harte, the noted writer, who arrived in 1857. He wrote his first article for the Humboldt Times. It related to an Indian fight and attracted attention in the East because it referred to male Indians as "bucks." Harte acted as agent for Wells, Fargo & Co., and at the same time assisted S. G. Whipple in the editing of the Northern Californian. He learned to set type in the Times office, and in 1859 returned to San Francisco, where he served as a compositor on the old Golden Era, to which he contributed articles. Harte was related to Judge Wyman.

President Grant, just having been promoted to a captaincy, was also for a short time a resident of the County, being stationed at Fort Humboldt, the ruins of which are yet in existence. The known particulars of his life while in the County are very meagre, but from the best

information procurable it seems probable that he arrived to take over his command about the end of October, 1853, and after remaining a few months, left in the following March to rejoin his family, who were residing in the East.

The Humboldt Land District was established by an Act of Congress approved March 29, 1858. William McDaniels was the first Register, and Major Hook the first Receiver. Their term of office commenced April 1, 1858. They arrived on July 22, 1858, but the Land Office was not opened for business until October 11, 1858. The office was first located at Humboldt Point, but was removed to Bucksport in the latter part of the same month. The first land purchase made in the Land Office, then located at Humboldt City, was by Seth Kinman, in October, 1858. He selected eighty acres about one mile directly east of the site upon which was subsequently erected the Table Bluff light-house. Land was first advertised for sale by the Land Office in August, 1858, and the first public sale was made on Monday, February 14, 1859. The Land Office was removed to Eureka in May 1859.

The County was organized by Act of Legislature May 12, 1853, its affairs up to 1855, being administered by the Court of Sessions. In the latter year, the management passed into the hands of a Board of Supervisors, under an act of that year authorizing the election. The Board consists of five members, the County being divided into five supervisorial districts, each returning one member.

The county seat was first established at Arcata, then called Union. Its removal to its present location, Eureka, was effected May 1st, 1856, by Act of Legislature, the first court house being erected nearly five years later, and in use until 1889, when the present magnificent structure was completed.



A Burden Bearer.

The Indian School at Hoopa.

An Indian Chief.

An Indian Belle.

HUMBOLDT COUNTY IN GENERAL



NE of the prominent features of the Coast line which meets the eye in a superficial glance at any map of the United States, or of North America, is the angle of the seashore of the Pacific Coast which marks the most westerly limit of the United States, and is known as Cape Mendocino. It is embraced in the territory of, and is the most noticeable and distinguishing feature of the County of Humboldt, the northernmost county but one in the State of California. Humboldt County embraces a coast line in the aggregate north and south of this promontory of over one hundred and fifty miles; the air-line length of the county being one hundred and eight miles. It possesses the further geographical distinction of being about the exact center of the Pacific Coast line of the United States between Mexico and British Columbia. It has the fortieth degree of latitude for its southern boundary.

Being 108 miles long, an average of 35 miles wide, Humboldt County contains 3,507 square miles of land, or 2,244,480 acres. Its natural sub-divisions, physical features, resources and possibilities, make up a section teeming with wealth and opportunity, offering rare inducement alike to the capitalist and industrious. The most distinguishing physical features besides its westernmost position, are its splendid and safe land-locked bay and harbor, its numerous and important rivers, and rugged mountains, valleys, and forests of valuable timber. The Japan current serves at its very doors, bringing its moderating influence upon the climate, and it also brings the

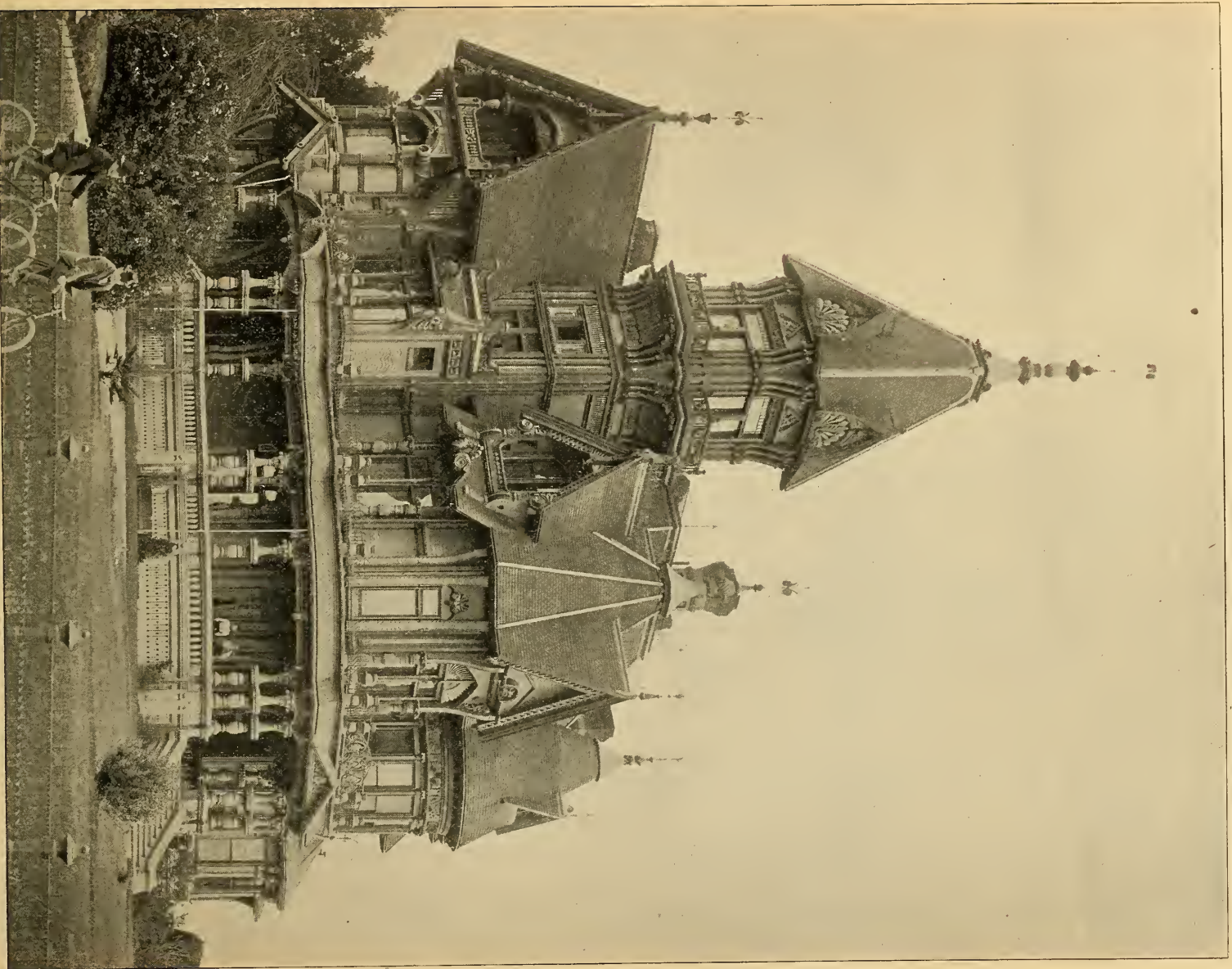
fleets of merchant marine from the Orient, which sight this westernmost landmark and beacon-light of Humboldt first, and then veer their courses to their respective destinations.

Humboldt Bay is the second best harbor of the State. It has a tidal area of twenty-seven square miles, and is traversed by twenty-six lineal miles of navigable channels. It is forest-bound on the inland side, except where the forest has been cleared away for the site of the capital city of Eureka. It is separated from the ocean by two peninsulas of low sand dunes—one from the north and one from the south—which terminate at the entrance, a little south of the center of the bay, thus forming a bay and harbor capable of accommodating the commerce of the hemisphere.

While Humboldt Bay is the harbor, there are roadsteads along the county's coast, from which at times, there is considerable shipping. Shelter Cove, in the southern part of the county, enjoys considerable reputation as a shipping point.

Eel River when the bar permits, is navigable for quite large craft. The bar had been too shallow for several years to allow shipping but the winter freshets of 1901-2 opened it out to a considerable extent, again affording shipping accommodation to Port Kenyon.

North of Humboldt Bay is Trinidad. Under the lee of the headland is a deep water roadstead, and from this point is shipped the shingles of the Trinidad Manufacturing Company and those from Houda's mill. With a break-water Trinidad would form a splendid shipping point.



RESIDENCE OF WILLIAM CARSON, EUREKA

The government has been asked to improve the place, but thus far has taken no action in that direction.

Enumerating from south to north, the largest rivers are: The Mattole, Bear River, Eel River, Van Duzen, Mad River, Redwood, Klamath and Trinity. They all take a general northwest course to the sea. Besides these rivers there is quite a number of goodly creeks and spring streams, thus amply supplying all parts of the county with living water.

Looking at the county with a bird's-eye view, one would see a territory divided alternately, with much of bottom and table land near the coast, gradually rising into rolling hills, steep and high mountains; and while the hill and mountain lands are generally wooded, there are great open prairies of grass lands along the southern slopes of the ranges of hills, embracing many hundred thousands of acres of grazing lands, covered with native grasses. The hill and mountain areas, being traversed by so many streams of considerable size, their ruggedness is thus relieved alternately by canyon and narrow valley, which offer opportunity for many comfortable homes. The ranges of hills attain an altitude of from 1,000 feet to about 3,500, practically all of which, when not covered by timber, are good farming and grazing lands. A few mountain elevations reach an altitude of 5,000 feet and some peaks rise as high as 7,000 feet.

Thus spread out in valley, bench land and rolling hills, mountain range, rocky canyon and towering peak, the surface alternating between the darkling green of the forest and the lighter green of the grassy prairies, it presents a panorama to the vision of thrifty industrial life, forest and mountain wild, in pleasing and interesting contrast.

In making a sub-division of the area of the county ac-

cording to the different characters of land, it will be found that there are approximately as follows:

Covered by timber of all kinds.....	937,000
Susceptible of cultivation	540,535
Grazing lands	580,538
Mineral lands	125,000
Marsh lands	31,281
Waste lands	30,000
Total	2,244,354

That classed as "waste" is rough, mountainous land, generally covered by chaparral, and serves practically no other purpose than as a covert for wild animals. Viewed from the deck of a passing vessel, the county has the appearance of being a forest-covered mountain territory; but, besides the large areas of open prairie along the southern exposures, during the fifty years of occupation by the Americans, large tracts of bottom land on all the considerable streams have been cleared up and have proved to be productive beyond comparison with any other section. Incredulous as it may seem to those unfamiliar with Humboldt crop growth, one hundred tons of mangel wurtzels, or one hundred and twenty-five bushels of oats, have frequently been taken, weighed and measured, from a single acre of ground. In Humboldt, such yields are called "a big crop," and cause no further question or comment. Of course it is not intended to present this fact other than as an exceptional example of the productivity of the natural soil of the river bottoms.

Most of the bottom land occurs near the coast where the rivers debouche from the hills and the land spreads in fertile bottom, table and rolling land. The main portion of the farming land lies between the coast and the timber belt, comprising a territory along the coast of irregular



SAN FRANCISCO & NORTHWESTERN (SANTA FE) DEPOT IN EUREKA

form generally three or four to eight or ten miles wide, along the central portion of the country. Inland from the timber belt, lies the larger portion of the grazing land. Many thousands of acres of grazing land now used for that purpose are susceptible of cultivation and when the means of transportation become improved, will undoubtedly be used for both fruit and grain and hay.

At present a greater portion of the county outside of a radius of twenty miles around Humboldt Bay is employed in live stock—cattle, sheep, hogs, horses, a few angora goats, intermixed with some fruit-growing and small farming, to each of which the hill country is well adapted. It may be proper to say in this connection that Humboldt County was awarded the first medal at the Columbian Exposition at Chicago, for the best exhibit of dried prunes from the State of California, thus holding the banner for the State, over all the prune districts; and also that Humboldt apples invariably secure first premium at the California State Fair whenever they are placed on exhibition. For flavor, size and production to the acre, in either agricultural or horticultural products, Humboldt stands queen of the galaxy of counties of California.

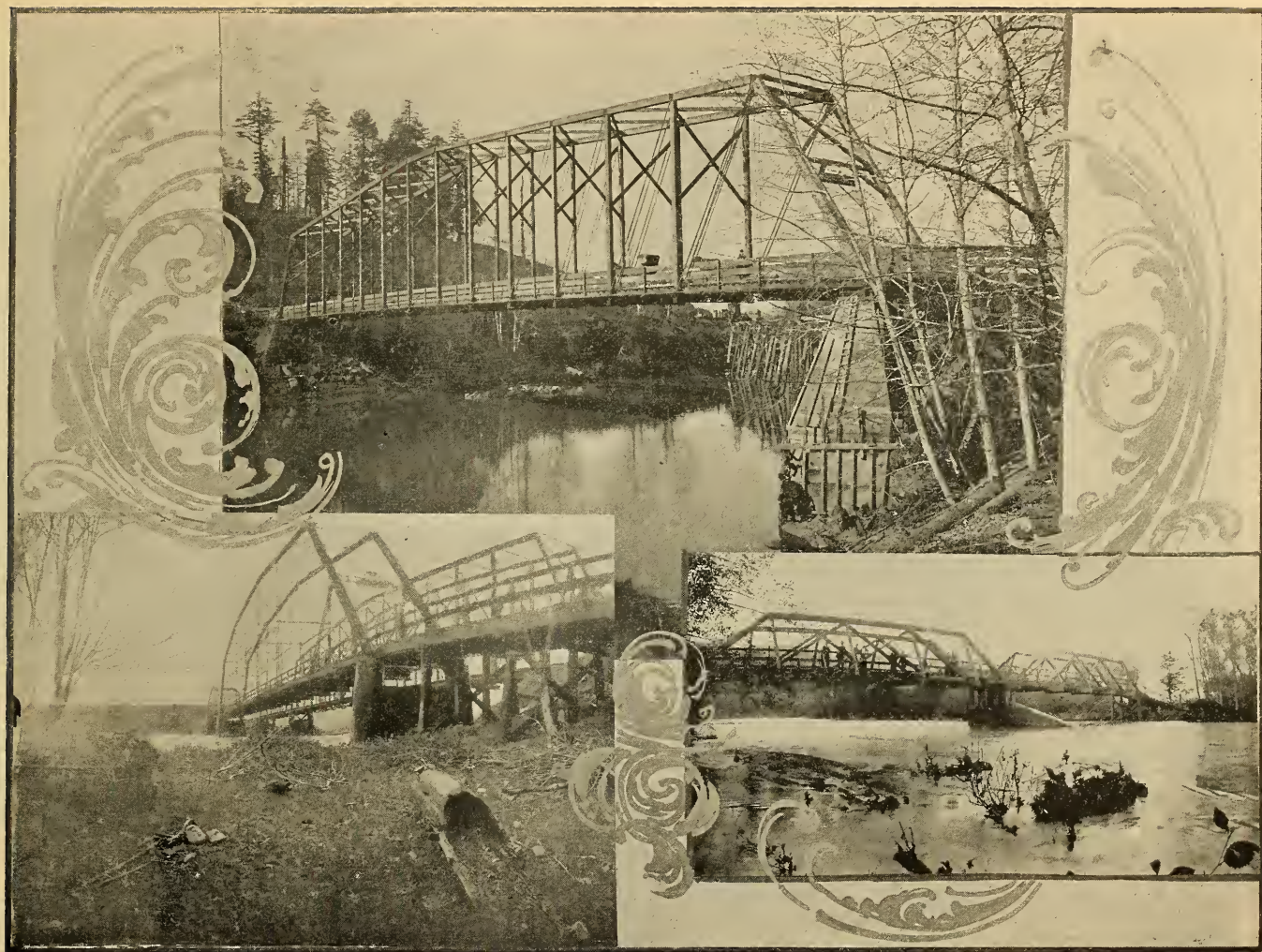
A large portion of the rich bottom lands and table and rolling lands are used in dairying, there being some forty-five to fifty creameries in the county, and over one hundred separators in operation. While the great forests of redwood have been heretofore, and are now the source of the leading business of the county, and lumbering is fast increasing in the volume of its output, forming a most important factor in Pacific Coast commerce, yet rapid as this increase is, the dairying interest is increasing still faster, and now stands second, and a very promising second, in point of value of annual output; thus beyond all

question proving the adaptability of Humboldt's cool and equable climate and fecund soil to that industry.

However lavish nature has been in her endowments of rich soil and forest growth, she has been equally generous with her treasures of mineral wealth. In the sands of her sea-beaches, washed by each recurring tide, according to careful reckoning, lie untold millions of fine gold. Along the Klamath and Trinity rivers, with their numerous tributaries, on their beds and bars, and old river beds and gravel deposits of past ages high up on the hillsides in successive benches, are buried untold other millions of coarse and fine gold; while secure in the organic formation of her hills and mountains are gold and silver, copper, iron, chrome, chalk, asbestos, and beds of kaolin. All these sources of wealth, offering the widest opportunities for enterprising capital and labor, can be had for the taking. Along our beaches, our river beds and bars, the hill and mountain side, they lie on the west, the north, the east, within Humboldt territory; while in the south through the Mattole and South Fork country, through, over, and across a twenty mile belt of splendid grazing and fruit country are buried deep in the earth reservoirs of the finest crude petroleum known.

Nature never does things by halves, and after endowing the county with nearly every known mineral and vegetable growth in bountiful profusion, she has subdivided the whole into a system of water courses, thus forming the natural highways to make them available, with ample power in the rapidly falling beds and swift streams to drive mills and factories for the reduction of the crude materials.

Telegraph and long distance telephone wires connect the county seat with the outside world. The means of transportation and travel to and from the county is by



New Van Duzen Bridge

HUMBOLDT COUNTY BRIDGES
Over Salt River

Over Bear River

ocean steamer or overland road by stage or private conveyance. The steamers serve regularly three times a week with mail—time, seventeen to twenty-four hours, from San Francisco; the overland trip requiring two days in transit. For transportation, there are steam schooners arriving or departing every day.

There are about one hundred and fifty miles in the aggregate of short line railroads in the county, but as yet no connection with the system of the State, nor in any case do the local roads cross the county lines. It is certain, however, that the much desired connection with the roads of the State and United States, is not to be long deferred.

Such in brief is a superficial view of Humboldt county as it is presented to the eye of the visitor or traveler, leaving the more particular and exact data to be given under the separate subjects treated under various sub-heads. Inspired by the variety and magnitude of natural resources a local writer has made the figure that "Humboldt is the greatest county, in the greatst State, in the greatest country, under the sun," to which a visiting stranger added, "in the greatest world in the universe." While it may seem like "putting it pretty strong," the enthusiastic exclamation does not come far from the truth, as a careful examination will demonstrate.





Cape Mendocino

SCENES ALONG THE COAST SOUTH OF EUREKA
False Cape

Near Cape Mendocino

POPULATION

SOMETHING has already been said in this work of the settlement of the County. Since that time—1850—to the present time there has been a steady increase in population. The increase has not been exceptionally large, but gradual and permanent. Humboldt has never experienced a “boom,” in the sense that word is understood in the southern part of the State. There has never been any great sudden influx of home-seekers. Nor on the other hand, has there been any sudden or noticeable decrease. On account of the isolated position of the County, and the fact that it has no rail connection with the outside world, we have no “floating” population. People who come here, come because they have a definite object in view, and they come to stay.

One fact makes Humboldt unique among the counties of California, and indeed, on the Pacific Coast—we have no Chinese. Our workmen are not compelled to come into competition with the degraded coolies of the Orient. There was a time when the Chinese had quite a colony here, but in one of their “tong” wars a stray bullet from the pistol of a high-binder struck and killed a prominent citizen of Eureka, who was passing along the street. The community rose as a man and drove every Chinese out of the county. No violence was used but they were compelled to go. That was in 1885, and since then Humboldt has had no Chinese. Even in far-off China, the coolies know that they are not permitted to come here, and none ever attempt it.

The population of Humboldt, according to the census of 1900, was 27,104. This does not include 1,112 Indians. The population, according to the census of 1890, was 23,469. A gain is shown of 10.8 per cent. The increase since the census of 1900 has been more rapid than before. Careful estimates now place the total population of the county at over 30,000. The cause of the increase in the past few years may be at-

tributed chiefly to unexampled activity in the lumber business; and also to the fact that both the Southern Pacific and the Santa Fe are now building rail lines to this bay. This has attracted not a little attention to this section and resulted in quite an influx of people.

The federal census report from 1860 to 1901, shows the following:

	1900	1890	1880	1870	1860
Humboldt	27,104	23,469	15,512	6,140	2,694

The population by townships is as follows:

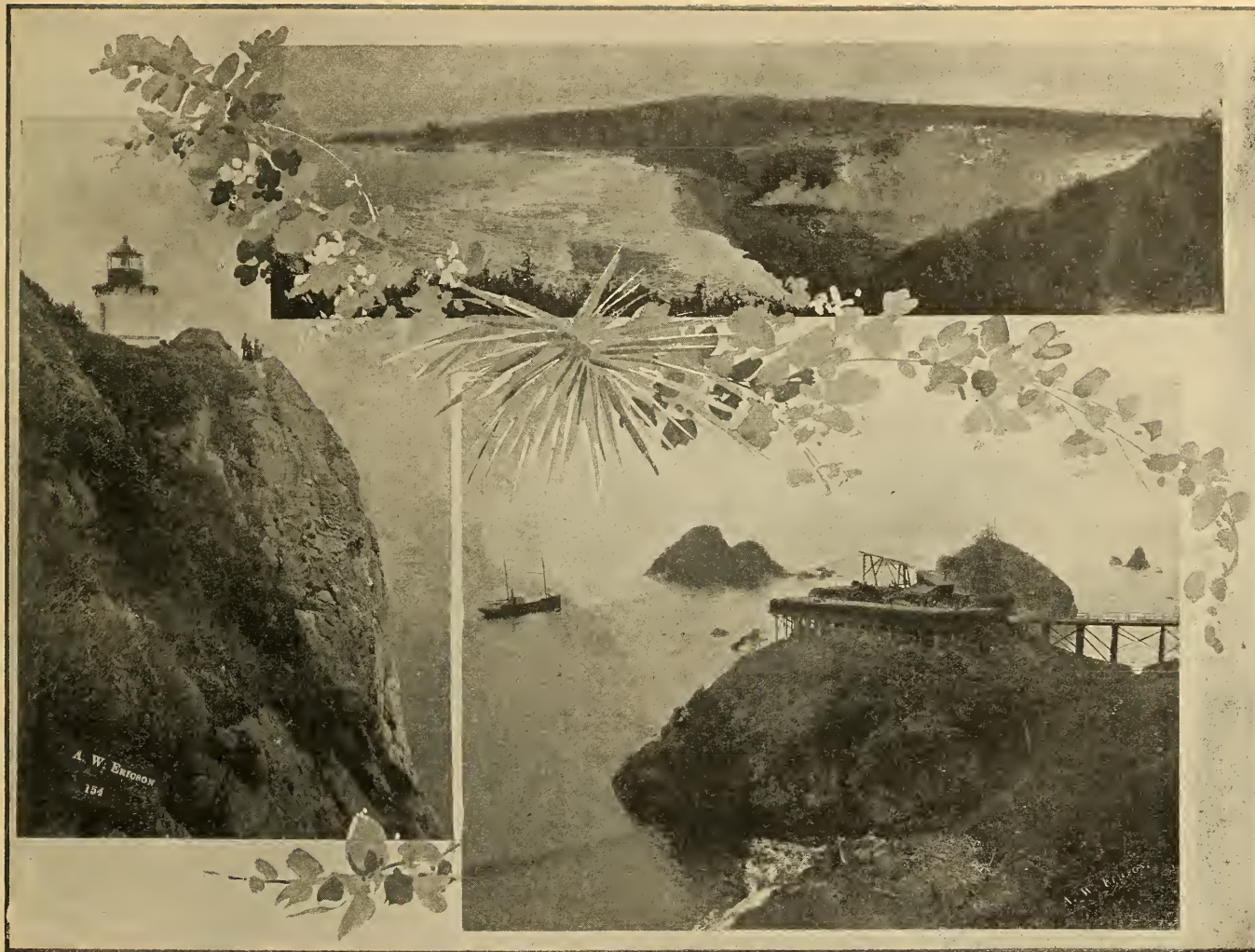
	1900	1890	1880
Bucksport	1,019	1,312	540
Eureka (including City of Eureka)	7,327	4,858	3,484
Hydesville	1,825	1,511	723
Klamath	367	792	1,143
Mad River	1,425	1,303	538
Mattolé	675	529	663
Orleans	355	317	447
Pacific	3,446	3,120	2,293
Rohnerville	2,107	1,665	909
South Fork	923	955	809
Table Bluff	926	828	876
Trinidad	878	483	618
Union	2,955	2,984	1,788
Van Duzen	587	659	681
Hoopa Indian Reservation	1,112		

The character of our population and its division as to sex is shown in the following table:

	1900	1890	1880
Males	15,050	13,618	8,880
Females	12,054	9,851	6,632
Native Born	20,913	17,091	11,991
Foreign Born	6,191	6,378	3,521

The white, negro, Indian and Japanese population, is as follows:

	1900	1890	1880
White	25,359	22,022	13,313
Negro	12	48	23
Indian	1,728	1,379	0
Japanese	0	1	0



Trinidad Light House

SCENES ALONG THE COAST NORTH OF EUREKA
Looking Toward Trinidad from the Cape

Houda's Landing near Trinidad

Our total foreign born population numbers 6,191. It is divided among the different countries as follows: Atlantic Islands, 9; Australia, 27; Austria, 77; Canada, including New Foundland, 1,735; Denmark, 367; England, 308; Finland, 322; France, 70; Germany, 726; Mexico, 7; Norway, 314; Pacific Islands, 18; Poland, 7; Holland, 38; Hungary, 13; Ireland, 604; Italy, 232; Portugal, 135; Russia, 15; Scotland, 108; South America, 8; Spain, 2; Sweden, 536; Switzerland, 409; Wales, 38.

Taking the total of males in the county over 21 years of age, we find them classified as to literacy and illiteracy as follows:

Native White—		
Literate	4,815	
Illiterate	53	
Foreign Born—		
Literate	3,360	
Illiterate	165	
Unknown Parentage—		
Literate	324	
Illiterate	19	

Such is Humboldt's population—an industrious, orderly,

well conducted and thriving people. Serious crime is rare, and often the county jail is entirely without occupants. The amount of crime, in comparison to population is so small, that it is a constant cause of wonder to the peace officers of other parts of the State. The reason is plain. Our citizens are solid, sober men of family, nearly everyone owning his own home, and it is not among such that crime is found. It is a noticeable fact that most of the serious crimes committed here have been by men from the outside, who may be said to constitute what might be termed "floating" population.

Our people are contented and prosperous. As may be seen by statistics given elsewhere, the per capita wealth is large. Actual pauperism is almost unknown. The statistics show that the excess of exports over imports in 1903 was almost \$3,000,000. This money, it must be remembered is merely the balance of trade in our favor, and it is scattered among a population of only 35,000. It can be realized from this that our people are not growing poorer. Where can you find another section showing a balance of trade of nearly \$100 in favor of every man, woman and child?

HARBORS AND RIVERS

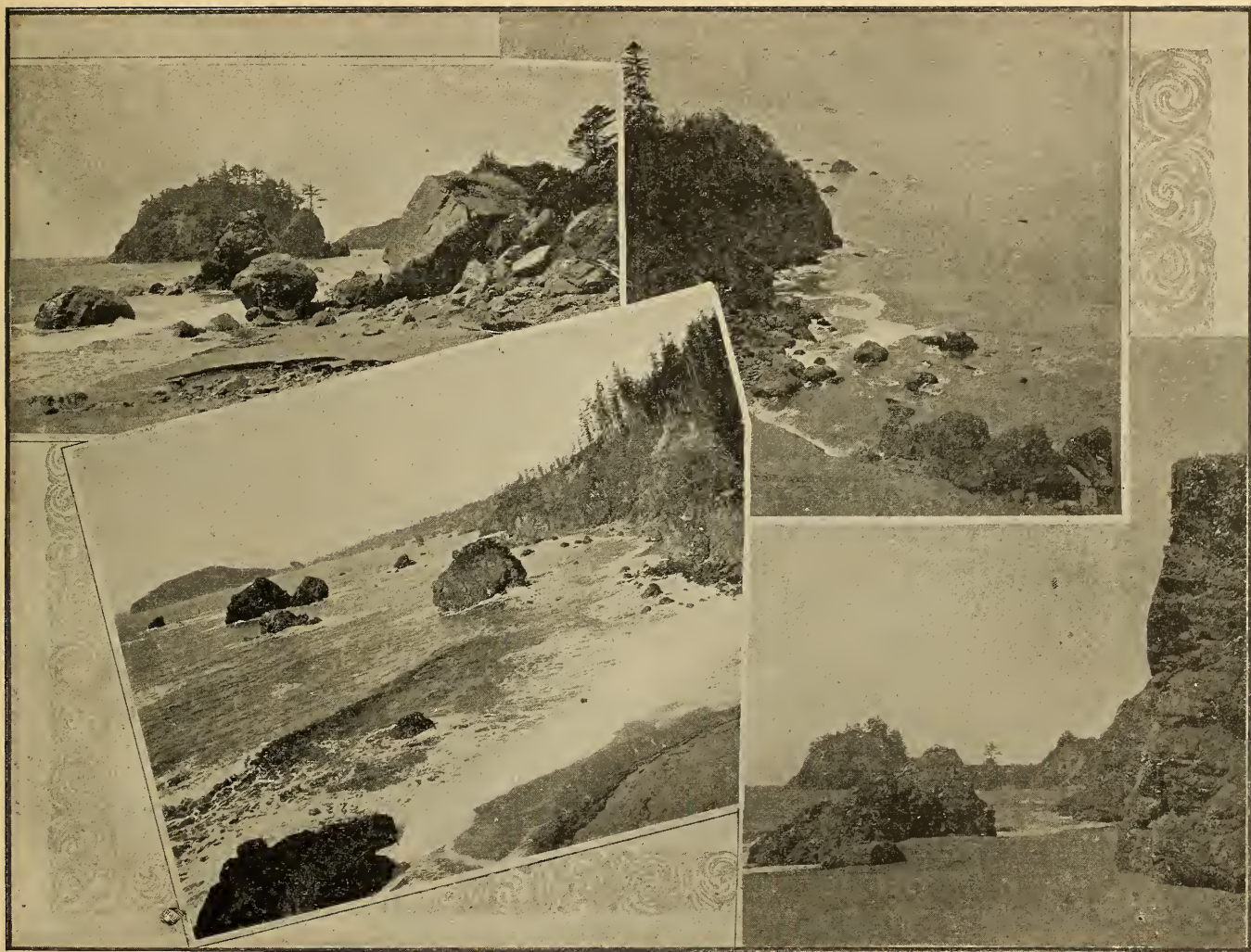
HUMBOLDT BAY, affording the only harbor on the coast of Northern California, being the second best harbor in the State, second only to San Francisco, and the principal one between the bay of San Francisco and the mouth of the Columbia River, lies in north latitude 40 degrees 40 minutes to 40 degrees 52 minutes and west longitude 124 degrees 6 minutes to 124 degrees 16 minutes, the entrance to the bay being in north latitude 40 degrees 45 minutes west longitude 124 degrees 14 minutes.

The bay is fourteen miles in length, with a varying width of one-half mile to four miles. Its tidal area is approximately twenty-eight square miles, with about thirty-five miles of navigable channels; and it possesses an available water frontage of

over fifty miles. The bay lies lengthwise parallel to the coast, separated from the ocean on the west by peninsulas varying from one-quarter of a mile to one and one-half miles wide.

The entrance to the bay from the ocean is situate about the center of the coast line of Humboldt County. On the north, east and south the bay is protected from storms by mountain ranges and headlands, and the entrance being comparatively narrow, the most tempestuous storms of the ocean scarcely disturb its waters.

The vast importance of so commodious and safe a harbor, contiguous to the highways of Pacific commerce, had long been recognized by maritime interests; but its usefulness had been impaired by the presence of a sand bar, which obstructed the entrance, making ingress and egress a matter of some



POINTS ALONG COAST NORTH OF EUREKA

difficulty, and not without danger. Added to this drawback was the fact that the depth of water in some of the inner channels was not sufficient to permit of large shipping. The Federal government recognizing the importance of the harbor, appropriated sufficient funds for its improvement, the improvement consisting of dredging the channels in the bay and constructing jetties at its entrance, with the objects of fixing a permanent and direct channel and removing the obstruction of the sand bar. Dredging was commenced in 1887 and the work of building the jetties in 1889. The work was completed in 1894, a sum of nearly two and one-quarter million dollars having been expended in the operations.

The effect of the improvements has fully justified the claims advanced in support of their plans by the engineers, Colonels Mendell and Heuer, of the United States Corps of Engineers. The jetties have forced, and are maintaining, by the scouring action of the tides, a permanent channel constantly deepening and broadening, through the sand bar, while the depth of water on the bar has been increased from 8 to 10 feet before the improvements commenced, to a minimum varying from twenty-five to thirty feet at extreme low low water, affording sufficient draft to permit the passage of any vessel, at any state of the tide.

The channels in Humboldt Bay are well defined as an aid to their navigation by a system of buoys and fixed lights. The main channel extends from the entrance, in a general northeasterly direction, passing between the city front of Eureka and Indian Island, to a point a little north of Eureka; above it subdivides into two branches, one on the west, the Mad River channel, the other, the Arcata channel, extending northeasterly and terminating at the wharf of the town of Arcata. The main channel possesses at its shallowest point, an average depth of fourteen feet at lower low water. Arcata channel exhibits, on a similar showing, a depth of eight feet.

In the South Bay are two channels, one terminating at Southport wharf, at the foot of Table Bluff, and known as the Southport channel, with a minimum depth, at lower low water, of nine feet; the other, the Eastern, or Hookton channel, with a minimum depth of fourteen feet, passes in front of Fields Landing, from which extensive lumber shipments are

made. The depths of water quoted are at the shallowest points, taken at lower low water.

There are no tributaries of any importance that debouche into Humboldt Bay. It receives the waters of several minor streams draining a limited area, and the flow of fresh water into the bay bears comparatively no part in maintaining the navigability of either the channels or the entrance.

Subjoined is a table of distances from the entrance of Humboldt Harbor to the principal ports and commercial points on the Pacific.

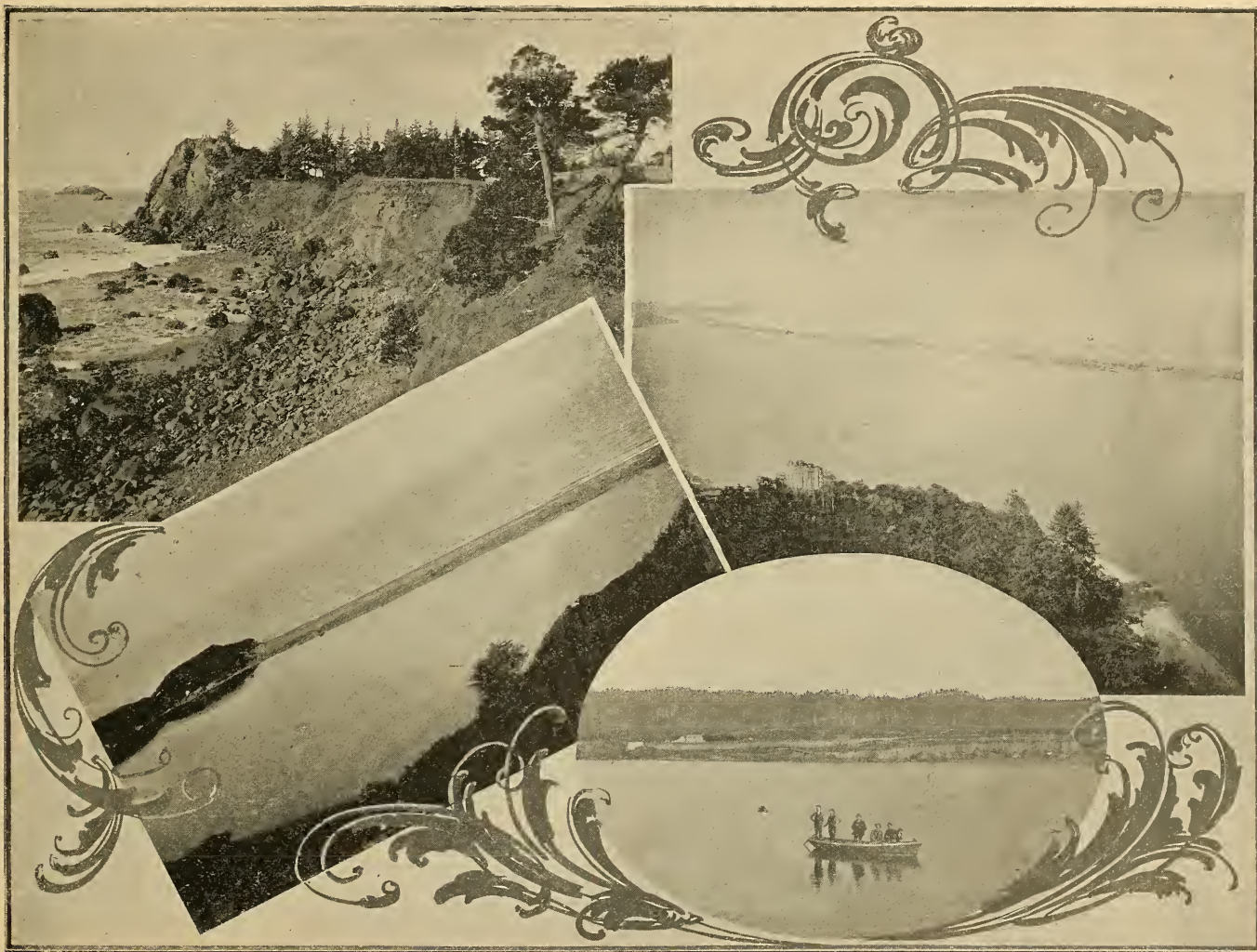
Distance of other Pacific Ports from Humboldt Bay:

Miles		Miles	
San Francisco	215	Guaymas, Mexico	2170
Columbia River	420	Mazatlan, Mexico	1409
Puget Sound	580	Shanghai, China	5700
San Diego Bay	697	Valparaiso, Chili	5967
San Pedro Harbor	609	Honolulu	2400
Coos Bay (Oregon).....	185	Sydney, N. S. W.....	7200
Crescent City (Cal).....	60	Manila, P. I.....	6750

Other shipping points in Humboldt County are Trinidad Bay and Shelter Cove. Trinidad Bay lies up the Coast, about twenty miles north of Eureka, well sheltered from the north and west winds by a bold promontory, Trinidad Head, and possessing a sufficient depth of water to accommodate the largest vessels. This port could readily be protected from the southerly gales, which at present render it unsafe for shipping, during the prevalence of the winter storms, and as the country tributary to it has a rich growth of timber, it would in such an event, become an important commercial center.

Shelter Cove is an open roadstead near the southern boundary of the County, formed by a sharp bend, in a westerly direction, which the Coast takes at that point. It possesses a good anchorage, and being well sheltered from the northerly winds affords a good summer harbor. Considerable quantities of wool, tanbark, railroad ties, etc., are at times shipped from here.

The principal river, and the only navigable stream, in Humboldt County is Eel River, which has its sources in the Coast Range, beyond the boundaries of the County, entering the County from the south-east by two branches, flowing



Coast Near Trinidad
Stone Lagoon

Big Lagoon
Fishing on Big Lagoon

northwesterly, nearly parallel, a distance of nearly thirty miles, before they come together, forming the main stream, which continues for forty miles, in the same general direction, to the ocean into which it empties itself at a point about seven miles south of Humboldt Bay. The principal tributary of Eel River is the Van Duzen, which takes its rise in the adjoining County of Trinity, flowing westerly to its confluence with Eel River about fourteen miles from the mouth of the latter stream. Other tributaries are Yager Creek, Lawrence Creek, and Big and Little Larabee Creeks; all streams of some size. The river together with a tidal affluent, Salt River, nine miles in length, is navigable for a few miles, though the presence of a bar at its mouth, with a shifting channel, had militated against its usefulness for some years, until in the early days of 1902, the spring freshets cleared away the obstruction, deepening the channel to about 16 feet at low water. The fact was soon turned to advantage, and regular trips are now being made between Port Kenyon on Salt River, and San Francisco, the steamer Argo having been placed on the run, plenty of freight being offered from Ferndale and the contiguous country.

Eel River, with its affluents, drains a vast area of land,


and constitutes a river basin that includes some of the most productive and fertile lands in all California.

South of Eel River is Bear River, with a northwesterly course, and emptying itself into the ocean four miles north of Cape Mendocino, while a few miles south of the Cape is the mouth of Mattole River, draining the fertile valley of that name, which is noted for the excellence of its fruits, and as being the principal field of the oil-boring operations undertaken at various times to develop the seepages found there.

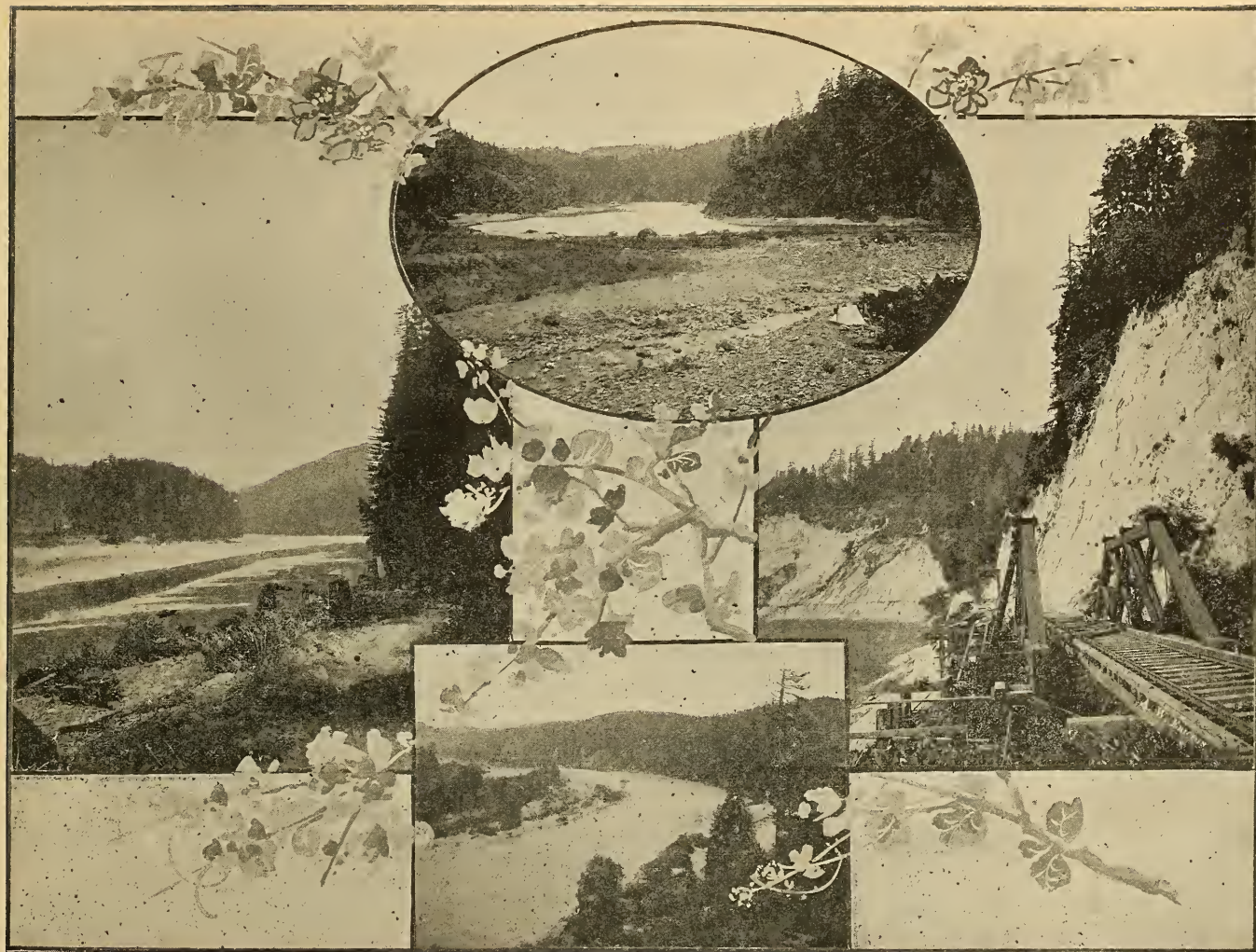
Mad River is, next to Eel River, the most considerable stream of the County, which it enters a little north of the Van Duzen, and flowing northeasterly, reaches the ocean ten miles north of the entrance to Humboldt Bay. The river penetrates a valuable timber belt, and its delta is one of the richest agricultural sections of the Coast. North of Mad River is Redwood Creek, a considerable stream flowing through a dense body of timber.

In the extreme north the great Klamath takes a sharp bend south into Humboldt County, and receives the waters of its affluent, the Trinity, from the south, taking its course into Del Norte County, by a bend to the north, as well defined as that which distinguishes its entrance into this County. The Klamath is navigable for small ocean craft for but a short distance from its mouth.

CLIMATE AND HEALTHFULNESS

UCH has been written about the climate of California, but to gain an exact idea of the atmospheric and meteorological conditions, a definite and full description of each particular section must be given. The climate is varied, there being a wide difference oftentimes between places only a few miles apart. Taking Humboldt's climate as a whole, it presents two highly important features—a pure and abundant rainfall and no extremes in temperature. That is the description in general terms.

Humboldt's climate presents varied phases, according to localities, as does that of any other section. To attempt a minute description of the climate, would be to attempt a separate description of almost every valley in the county. For instance, while the rainfall along the Coast, where the principal cities and towns are located, is full and abundant, it is much greater in some of the small valleys among the mountains. Eureka has an average seasonal rainfall of about 45 inches; that of Upper Mattole, in the southern part of the county, will run to about sixty inches.



SCENES ALONG EEL RIVER

Eureka has no snowfall of consequence, nor has any part of the territory around Humboldt Bay. Snow sometimes falls, but it melts as fast as it reaches the ground. And there are many winters in which there is no fall whatever. In the mountainous regions plenty of snow is found. The mountain tops are often covered to a depth of three feet and even more, and remain so for weeks at a time.

And similarly to the rainfall, do the conditions vary as regards temperature. The highest temperature recorded at Eureka, since the establishment of the Weather Bureau Station here in 1886 is 85 degrees; in the interior valleys of the county the temperature sometimes ranges as high as 110 degrees, and even more.

The local office of the United States Weather Bureau was established December 1, 1886, and is considered one of the most important stations on the Pacific Coast. The Eureka office is supplied with the following named meteorological instruments: Non-recording mercurial barometer for measuring atmospheric pressure; normal mercurial barograph, which records automatically and continuously the pressure of the air; thermograph, which gives a continuous record of air temperature; mercurial exposed thermometer for observing current temperature; mercurial maximum thermometer for recording the highest, and alcohol minimum thermometer for recording the lowest temperature; psychrometer, which consists of a wet and a dry bulb thermometer, for determining the vapor pressure in the air, dew point, and relative humidity; photographic sunshine recorder giving time and duration of each day's sunshine and cloudiness; rain and snow gauges for measuring precipitation; meteorograph, an instrument for a continuous record of wind velocity and direction, rainfall, duration of sunshine, and cloudiness in day time.

Telephonic communication has been established between the Weather Bureau office and the Life Saving Station at the entrance to Humboldt Bay, and storm warnings, of great advantage to passing vessels, are now displayed at that place. An important improvement recently made in the equipment of the local office is the adoption of storm warning lanterns, with electricity as an illuminant. The time used by Weather Bureau stations is that of seventy-fifth meridian, or eastern standard time, which is exactly three hours faster than 120th

standard time. In addition to the regular tri-daily observations, special observations are taken when the instruments indicate the approach of a storm, or show any premonitions of storm formation.

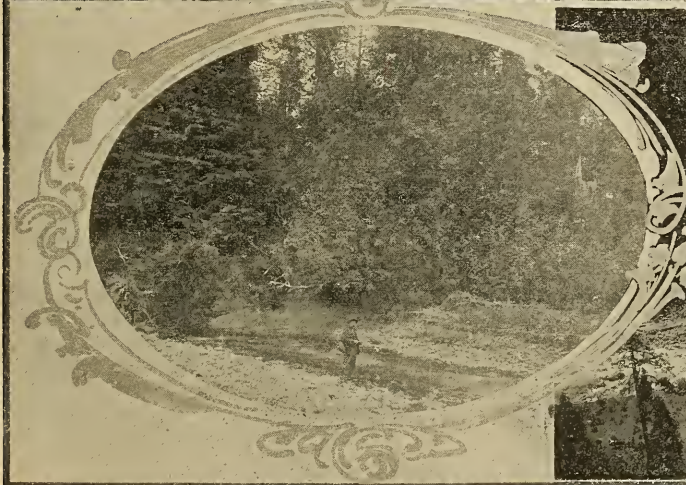
Equable and apparently health-giving is Eureka's climate. Among people who have experienced the pleasure of residing in this city, there is very general agreement that its summer and autumn climate surpasses that of any other portion of the United States. Extremes of temperature there are none; the nights being always cool enough for comfort and sleep, and the rainfall invariably sufficient to assure abundant crops without irrigation. In summer, however, cloudless skies and high temperature are characteristics of the more elevated localities, and of the region east of the redwood belt.

From October until April is the rainy season, but the wet period is by no means a season of continuous precipitation. Sometimes a rainy season will contain a good deal of very superior weather.

While the prevailing winds in the summer are northerly, seldom indeed do they attain the velocity of gales. Usually rising before noon and subsiding before nightfall, these winds are extremely liable to ensue on two or three consecutive days. In winter, on the other hand, the prevailing winds are southeasterly.

The following tables of temperature, rainfall, etc., at Eureka, California, covering a period of seventeen years have been compiled by Mr. Aaron H. Bell, official in charge of the Local United States Weather Bureau Office. To them have been appended temperature averages for New York City, Chicago, Washington, D. C., Key West, Fresno, San Francisco, Sacramento, and Los Angeles. These averages are made up from a record of five years for the purpose of comparison. It will be noted that while the yearly range of temperature at Key West, Florida, is practically the same as at Eureka, the temperature at the place first-mentioned is much higher.

It becomes also apparent that the mean winter temperature at Eureka is not so high as that of either Sacramento or Los Angeles. Moreover, the mean summer temperature at Eureka is much below that of Sacramento, Los Angeles, San Diego, Fresno and San Francisco. The extreme range of



Mad River
Price Creek

Salt River
Bluff Creek

CLIMATOLOGY OF EUREKA, CALIFORNIA.

Data Compiled by Mr. A. H. Bell, Weather Bureau, Eureka, California

MEAN MONTHLY AND ANNUAL TEMPERATURE

YEAR	Jan.	Feb.	March	April	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Annual
1887.....	46.3	41.0	49.3	48.5	51.9	52.4	52.5	54.7	54.0	53.0	50.5	47.7	50.2
1888.....	44.6	48.4	47.7	50.9	53.5	59.4	58.0	57.4	57.4	54.6	51.2	52.2	52.9
1889.....	46.9	48.2	52.2	53.2	54.8	55.0	55.6	55.4	56.0	56.2	53.2	46.6	52.8
1890.....	42.2	44.4	46.9	49.0	54.0	55.2	56.7	55.8	53.2	51.6	50.0	48.4	50.6
1891.....	48.0	45.4	49.0	50.9	53.2	56.4	56.0	59.4	56.7	54.1	52.4	45.4	52.2
1892.....	48.0	47.8	48.6	49.0	52.8	53.6	55.4	56.2	56.2	53.6	49.6	46.6	51.4
1893.....	44.7	45.2	47.8	47.8	51.4	53.7	55.9	55.2	56.0	51.4	50.9	47.4	50.6
1894.....	45.6	43.6	46.4	48.6	51.0	54.4	54.4	57.3	55.0	53.9	50.7	46.0	50.7
1895.....	46.4	49.4	47.9	49.8	53.0	52.8	56.0	54.0	53.7	52.0	48.8	46.8	50.9
1896.....	50.0	48.4	50.0	48.3	51.5	54.0	57.2	59.9	55.6	52.6	49.1	51.0	52.3
1897.....	48.1	47.2	45.2	51.0	52.8	55.8	55.8	56.5	55.2	53.8	49.4	48.6	51.6
1898.....	44.0	50.0	45.6	48.8	50.4	56.3	54.6	55.9	56.0	53.9	48.3	46.2	50.8
1899.....	47.5	44.4	48.0	48.2	49.6	52.0	54.8	55.9	54.8	52.0	55.9	48.0	50.9
1900.....	50.4	48.6	50.5	50.5	54.4	56.2	56.4	57.0	56.6	53.5	53.3	50.8	53.2
1901.....	47.4	49.6	49.2	47.7	52.2	53.4	55.5	55.0	55.5	53.8	53.0	47.6	51.8
1902.....	46.6	52.2	46.8	50.8	54.2	54.8	56.2	57.0	56.0	55.7	51.8	49.8	52.6
1903.....	48.6	45.1	49.2	48.7	51.5	56.2	54.7	56.0	55.2	54.6	53.2	49.0	51.8
Average 17 years.	47.3	48.4	48.3	49.2	52.6	54.8	55.5	56.1	55.3	54.9	52.2	48.3	51.9

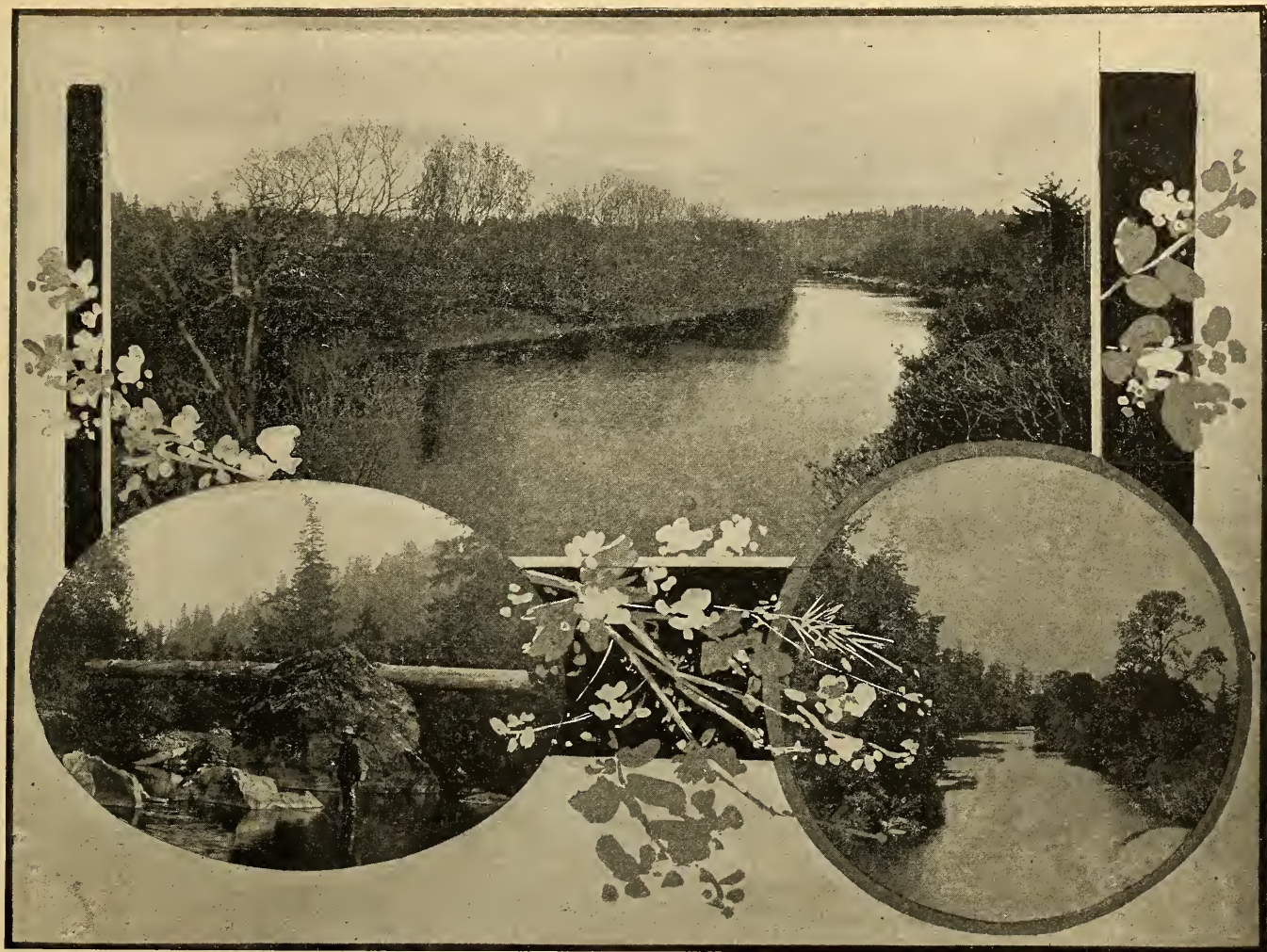
TEMPERATURE

Highest monthly mean and year.	1900	1902	1889	1889	1889	1888	1888	1896	1888	1889	1889-'03	1888	1896
Lowest monthly mean and year.	50.4	52.2	52.2	53.2	54.8	59.4	58.0	59.9	57.4	56.2	53.2	52.2	59.9
Absolute maximum and date.	1890	1887	1897	1901	1899	1899	1887	1895	1890	1893	1898	1891	1887
Absolute minimum and date.	42.2	41.0	45.2	47.7	49.6	52.0	52.5	54.0	53.2	51.4	48.3	45.4	41.0
Greatest d'y range	26, 1888	2, 1898	26, 1895	26, 1891	24, 1890	6, 1903	16, 1888	27, 1894	17, 1897	5, 1897	16, 1895	15, 1891	Oct 5, '97
	77	70	75	73	78	85	73	79	82	84	74	70	84
	14, 1888	4, 1889	3, 1896	5, 1895	1, 1887	26, 1887	15, 1887	31, 1890	22, 1895	17, 1893	27, 1896	22, 1895	Jan 14, '88
	20	24	29	31	35	40	43.	45	36	38	27	30	20
	35	29	27	25	26	33	16	18	22	34	26	24	34

WEATHER

Average No. Days													
Clear	6	6	7	9	8	12	10	7	9	7	6	11	101
Partly cloudy.....	10	7	11	11	13	9	2	13	11	11	9	7	123
Cloudy	15	14	12	10	9	8	12	11	9	11	14	13	141
*Rainy	16	17	16	12	11	4	9	2	5	9	15	13	125

*A rainy day is one on which one-hundredth of an inch or more fell.



On Upper Van Duzen

Elk River in Chill October

A Bit of Bear River

MEAN, MONTHLY, ANNUAL AND EXTREME TEMPERATURES COMPARED

STATION.	Jan.	Feb.	Mar.	April	May.	June	July	Aug.	Sept.	Oct.	N v.	Dec.	Annual	Hi h est	Low est	Gr. at est Yearly Range	L-ast Yearly Range
New York City	33.6	30.9	37.7	49.3	69.5	68.8	74.1	73.7	67.0	57.0	46.2	34.8	52.5	99	-6	103	86
Chicago, Ill.	25.8	24.2	33.0	48.1	58.8	67.0	72.7	72.6	65.2	55.6	39.5	27.9	49.2	98	-21	119	102
Washington, D. C.	33.9	33.9	42.9	53.7	64.8	72.2	77.5	76.1	69.3	58.0	47.0	36.4	55.5	101	-15	112	89
Key West, Fla.	68.2	69.6	72.8	74.8	78.5	82.0	82.7	83.4	81.8	78.7	75.4	71.1	76.6	91	44	46	38
EUREKA, CAL.	48.0	47.7	47.9	49.4	51.7	54.9	55.8	57.0	55.6	53.2	51.2	48.9	51.8	*85	*24	54	33
Fresno, Cal.	46.5	51.8	54.3	60.6	66.5	77.1	83.2	78.6	73.0	63.1	53.9	45.7	62.9	114	23	90	83
San Francisco	50.2	52.8	52.4	54.4	55.2	57.9	57.6	58.4	60.2	59.3	55.0	50.6	55.3	94	33	60	52
Sacramento, Cal.	46.5	51.6	53.3	58.7	62.1	70.3	74.4	71.5	69.3	62.1	53.4	45.6	59.9	110	26	77	72
Los Angeles, Cal.	55.6	56.5	56.7	59.4	61.8	66.9	70.2	70.8	69.3	63.9	62.1	57.9	62.6	103	30	68	59

*85 degrees is the highest, and 24 degrees is within 4 degrees of the lowest temperature ever recorded in Eureka.

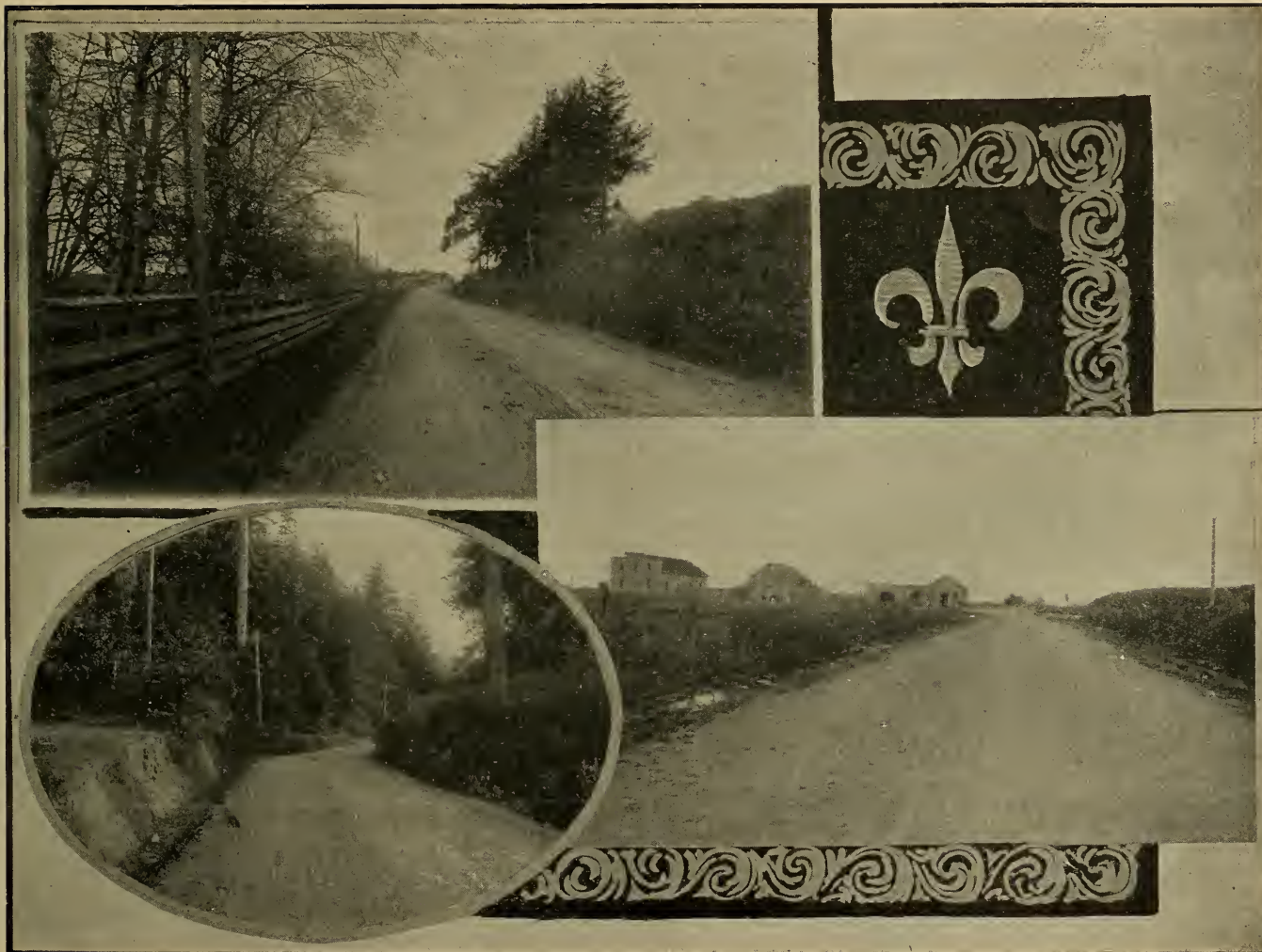
RAINFALL AT EUREKA, CAL., FROM JANUARY 1, 1887 TO DECEMBER 31, 1903.

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season of	Seasonal	Annual
1887	8.86	9.07	2.28	5.55	3.51	1.92	0.06	0.07	0.21	0.55	2.66	5.43	.....	.....	40.17
1888	12.95	1.98	4.09	1.05	0.76	4.66	0.44	T	0.06	1.15	3.41	5.93	1887-88	34.78	36.48
1889	4.25	1.93	5.91	3.49	7.20	0.37	0.15	0.13	0.32	8.36	3.71	12.88	1888-89	33.98	48.70
1890	18.26	13.88	11.57	2.26	1.71	0.87	0.08	0.02	0.79	0.44	0.18	5.48	1889-90	73.92	55.54
1891	3.33	9.81	5.83	6.37	1.55	1.53	0.29	0.31	1.45	1.64	2.72	10.97	1890-91	35.91	45.80
1892	3.29	2.53	5.32	5.54	3.63	0.45	0	0.09	0.99	2.90	8.19	6.55	1891-92	37.63	39.48
1893	3.65	6.27	10.59	7.16	2.43	0.33	0	0	2.39	4.33	9.87	6.69	1892-93	49.06	53.71
1894	12.38	6.13	7.46	2.97	1.31	1.67	0.02	0.04	1.84	3.12	2.03	12.31	1893-94	55.26	51.28
1895	9.37	3.60	5.31	2.88	5.39	0.06	0.23	0.11	3.14	0.05	3.88	7.50	1894-95	46.25	41.52
1896	8.14	4.61	6.93	11.13	6.22	0.51	0	0.70	1.60	2.37	8.00	9.41	1895-96	52.81	59.02
1897	3.04	11.23	9.85	2.55	0.75	1.60	0.03	0.15	1.05	2.63	5.44	6.18	1896-97	50.58	44.50
1898	3.23	8.00	1.80	2.78	2.62	1.21	T	0.06	1.48	2.13	4.43	3.17	1897-98	35.00	30.91
1899	6.50	5.03	8.53	1.91	1.73	0.75	0	0.42	0.88	4.28	14.80	7.05	1898-99	36.08	51.83
1900	6.63	6.04	3.42	4.43	2.08	1.70	T	0.07	0.21	7.07	8.06	5.27	1899-00	51.38	44.98
1901	9.93	7.41	3.86	4.08	1.50	0.12	.03	T	4.26	2.46	3.96	4.43	1900-01	47.58	42.04
1902	1.95	19.49	7.85	4.56	2.70	0.27	0.25	T	0.14	2.34	10.88	8.33	1901-02	51.96	58.76
1903	16.07	3.89	7.42	1.23	0.70	0.57	.06	0.53	0.28	2.42	10.79	4.03	1902-03	51.73	47.90
Average 17 yrs	8.84	9.29	6.37	3.54	1.96	0.56	0.11	0.17	1.46	2.54	7.79	6.07		*49.22	48.68

The capital letter "T" indicates the rainfall was but a trace, and was too small to measure. The total rainfall for the seasons are the totals from July 1st of one year to June 30th of the next. *Average precipitation for sixteen wet seasons.

Total Number of Days on which Precipitation has Fallen at Eureka, Cal., since January 1, 1887

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Less than 0.01.....	13	18	18	15	15	12	9	11	10	23	13	20
0.01 to 0.10.....	79	76	82	73	89	52	19	29	41	71	64	74
0.11 to 0.25.....	51	64	54	61	42	28	4	5	18	31	43	62
0.26 to 0.50.....	71	61	65	43	25	14	1	1	13	30	56	52
0.51 to 1.00.....	53	39	51	28	16	4	0	0	7	19	39	46
Over 1.00 inch.	31	34	24	14	11	3	1	1	4	10	24	34



Near Bucksport.

On the Arcata Road.

EXAMPLES OF ROAD BUILDING

At Elk River Corners.

mean temperature at Eureka is 11 degrees, but at Sacramento it is 26 degrees, at Fresno 37 degrees, and at Los Angeles 18 degrees.

Since the establishment of the Weather Bureau Station at Eureka, the highest recorded temperature has been 85 degrees; lowest, 20 degrees above zero; and the mean annual, 52 degrees. The average winter temperature is 47 degrees; spring, 50 degrees; summer, 56 degrees; autumn 53 degrees; while at Los Angeles the highest temperature was 109 degrees; lowest, 28 degrees; mean annual, 62 degrees. Average winter temperature, 55 degrees; spring, 60 degrees; summer, 70 degrees; autumn, 65 degrees. At Fresno, the highest temperature was 114 degrees; lowest, 20 degrees above zero; mean annual, 63 degrees. At San Francisco, the highest temperature, 100 degrees; lowest, 29 degrees; mean annual, 56 de-

ergy and vitality, where the natural drainage is so remarkably good, that the health of the inhabitants is above the average. And so it is, as shown by both the mortuary statistics of the City of Eureka, and the entire county. We have no low-lands breeding malaria and kindred diseases; epidemics get no foothold here. Though small-pox has been brought into the county several times, there has been but one death from the disease, and that was of a person who came here afflicted with it. When epidemics do reach this section, they invariably assume a mild form.

A study of the mortality statistics reveals the fact that the deaths are about equally divided among the various diseases common to mankind everywhere. Naturally, where the rainfall is so great, it might be expected that affections arising from and growing out of colds, would be especially numerous.

COMPARATIVE TABLE OF RAINFALL

CITIES.	1902	1901	1900	1899	1898	1897	1896
Eureka	58.76	42.04	44.98	51.88	30.91	44.50	59.62
Sacramento	23.85	17.88	17.91	21.14	10.04	15.32	25.06
Fresno	15.33	10.94	11.09	10.54	4.99	8.41	11.02
San Francisco	19.18	19.75	15.33	23.23	9.31	16.40	28.25
Los Angeles	14.91	14.32	11.30	8.69	4.83	14.28	11.80
San Diego	7.67	9.49	5.77	6.08	4.67	8.93	8.75

grees. At Sacramento, highest temperature, 110 degrees; lowest, 19 degrees above zero; mean annual, 60 degrees, and at San Diego the highest temperature was 101 degrees; lowest, 32 degrees, and mean annual, 61 degrees.

We present herewith a table showing Eureka's annual rainfall as compared with other parts of California. Sacramento is located in the Sacramento Valley of that name; San Francisco representing the Coast region; Fresno, the San Joaquin Valley, and Los Angeles and San Diego, representing Southern California.

From the foregoing, it must be evident, that the health conditions of the county are excellent. Where the variation of temperature is so small, where the ozonic salt breezes from the ocean sweep in, purifying the atmosphere, and giving en-

But such does not seem to be the case. While a climate of the character of that of Eureka, is not to be recommended for those subject to pulmonary complaints, yet a few miles back from the Coast in our hills may be found the warm dry air, considered to be particularly beneficial in such cases. Taking the statistics of the entire county, the records show the number of deaths during 1903 to have been 247. Of this number only twenty-four were due to consumption; and only nineteen were attributed to pneumonia. Rheumatism claimed but ten. In the City of Eureka, the figures for which are included in those of the county just quoted, the number of deaths in 1901 was 121. Of this number only six were caused by consumption; ten are laid at the door of pneumonia.

Equability of the climate may be further adduced from



NORTH FORK FALLS AND THE POOL

the deaths as they occurred according to months. It does not appear that any one month may be asserted to be better than another. Herewith are the deaths of the county for 1903, arranged according to the months in which they occurred:

DEATHS IN HUMBOLDT.

January	19
February	21
March	23
April	23
May	15
June	23
July	25
August	19
September	14
October	24
November	23
December	18
Total	247

As shown above, the total number of deaths during 1903, was 247. As the population of the county is about 35,000, this gives a death rate of seven to the thousand, a rate that is exceedingly low, as will be at once evident by comparison with the record of other sections.

There being some doubt whether all the deaths in the county have been reported, the statistics of the City of Eureka are herewith given. They are known to be complete and correct.

DEATHS DURING 1903 IN EUREKA.

Month	No.	Male	Female	Adults	Children
January	12	8	4	11	1
February	11	6	5	5	6
March	11	8	3	7	4
April	8	4	4	8	0
May	7	3	4	6	1
June	13	8	5	10	3
July	14	9	5	11	3
August	6	3	3	4	2
September	7	5	2	5	2
October	9	6	3	6	3
November	15	8	7	11	4
December	8	4	4	8	0
Totals	121	72	49	92	29

The figures quoted are taken from the county record made up from the burial permits issued. In some instances, permits have been issued for the burial of persons who have died elsewhere, but whose remains have been sent here for interment. As, however, there have been deaths here, and the bodies have been shipped elsewhere for interment, the one has been considered as an offset to the other, and no deduction has been made.

We have endeavored to show wherein Humboldt's climate is extremely favorable to human growth and development. There is not a day in the year when either the summer's heat or the winter's cold keeps a person from his ordinary pursuits with his accustomed vigor and energy. That it is also extremely favorable to vegetable growth, our giant redwoods are a remarkable monument. Any other forms of vegetation bear equally strong testimony to this fact; on every hand there is a luxuriance almost tropical. Besides the uncultivated forms, which are many and grow to a full and unretarded maturity, remaining green the year around, there are cultivated forms. Berries grow to perfection and need no shelter at any time. They ripen in mid-winter in the open air. The same is true of garden vegetables; there is no time of the year in which they cannot be brought to maturity. In all things, nature works under favorable conditions, and responds with marvelous growths and bountiful yields.

Highest Wind Velocity, Direction and Date, for Each Month, at Eureka, Cal., from January 1, 1888.

January	44	s.	1, 1894
February	48	nw.	29, 1896
March	46	nw.	2, 1894
April	42	n.	11, 1890
May	46	nw.	14, 1896
June	47	n.	22, 1896
July	44	nw.	17, 1897
August	36	nw.	27, 1892x
September	44	nw.	21, 1900
October	38	n.	13, 1888*
November	40	s.	27, 1892
December	50	sw.	24, 1892

*Also on the 3, 1895; x also on the 22, 1899.



EUREKA HIGH SCHOOL BUILDING

EDUCATIONAL INTERESTS



PERHAPS it may be profitable to review the educational interests of the county and see what progress has been made since the issue of "In the Redwood's Realm," in 1893.

The number of census children between 5 and 17 years of age in 1893 was 6,140; in 1901, 7,183; in 1903, 7,541; number under 5 years, in 1893, was 2,748; in 1901, 2,866; in 1903, 2,824; total under 17 in 1893, 8,888; in 1901, 10,049; in 1903, 10,365.

Enrolled in Grammar and Primary Schools, 1893, 5,331.

Enrolled in Grammar and Primary Schools, 1901, 5,735.

Enrolled in Grammar and Primary Schools, 1903, 5,940.

Average daily attendance in 1893, 3,526.

Average daily attendance in 1903, 4,436.

Average monthly salary of Grammar and Primary teachers, 1893, \$70.45.

Average monthly salary of Grammar and Primary teachers, 1903, \$69.63.

Number of volumes in school libraries in 1893, 21,144.

Number of volumes in school libraries in 1903, 36,574.

Number of school districts in 1893, 90.

Number of school districts in 1903, 105.

Number of school houses in 1893, 99.

Number of school houses in 1903, 119.

Number of Grammar and Primary teachers, 1893, 135.

Number of Grammar and Primary teachers, 1903, 167.

Number of High School teachers, 1893, 0.

Number of High School teachers, 1903, 9.

Valuation of school houses and lots, 1893, \$227,650.

Valuation of school houses and lots, 1903, \$194,616.

This last comparison is remarkable since it shows an actual decrease, placed upon a greater number of school houses. These valuations are from the reports of the Trustees and can only be accounted for on the supposition that those who reported or estimated the values of school property, were be-

ginning to yearn for better buildings and no longer set a fictitious value on the old tumble-down structures of pioneer days.

About the year 1893, or a little before, a few enterprising communities had bonded their districts for the means to build better houses, and the total amount of that kind of indebtedness was \$64,600 in 1893; in 1903 it was \$47,950.

Amount received from the State in 1893..	\$56,938
--	----------

" " " " " "	1903..	\$68,827
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" " " " Co. " "	1893..	\$33,430
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" " " " " "	1903..	\$51,383
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From this, it may be seen that there has been a slow decrease in the amount received pro rata from the State. This made a corresponding increase of the amount to be raised by the county necessary in order to meet the increasing growth of the schools. This has uncomplainingly been raised by the people who pay the taxes and who only ask that the large sum thus raised be expended for the best interests of the schools and the children.

Amount paid for teachers' salaries in 1893..	\$79,570
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" " " " " "	1903..	103,486
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" " " " contingent expenses, 1903..	7,300
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" " " " " "	1903..	19,717
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This last item shows a great increase. The total expenses of the two High Schools in 1903 were \$6,954. All of our school buildings are constructed of wood.

Large numbers of our boys and girls have been prepared, and prepared well, for graduation from the Grammar Schools while living far away in the mountains and on the farms and ranges far from the towns. Many have, however, been tempted to remove to the populous centers for the advantages of graded instruction; and this commendable desire of most parents to get the best has gradually depopulated many hill schools that were supported by a scattered population.



Rohnerville School

Fortuna Two Schools

LUMBERING

THE most prominent and interesting physical feature of Humboldt County, without doubt, lies in her unparelled forests of redwood, and her people are justly proud of possessing the very heart and choicest portion of this world-famous belt of timber. Aside from their consideration as objects or factors in the commercial and industrial world, these forests hold a wierd fascination for every beholder, and the visitor who views them in their primeval majesty for the first time gazes upon the gigantic trunks and towering spires in speechless wonderment and admiration. Nothing can be more awe-inspiring and impressive to the visiting stranger than to rest in the midst of some choice body of redwood, where the trees stand densely, reaching upward 200 or 300 and sometimes 400 feet, completely shutting out the sparkling rays of the brightest day and casting the shadows of twilight around their bases. Their extreme age will always be a matter of speculation, as the date of their germination reaches back into the earlier centuries, when we are told, the prophets and holy men "walked with God" and the Gentle Teacher taught his lessons of brotherhood and love. These immense trees now stand the most remarkable monuments of vegetable growth in the known world—gigantic in size, symmetrical and straight as an arrow, firmly planted and strongly rooted; they appear as the unmoved, unchanged sentinels of the passing centuries, except that they grow larger, taller, more grandly majestic as the centuries flit by like shadows into the past.

In the almost magical development of this great Dorado of the western shore, redwood has filled a most important place and the history of its first application and rapid adaptation to nearly all the requirements of structural work, is most interesting and unique. Early in the last century the Muscovites who settled at Fort Ross and at Bodega Bay undoubtedly whip-sawed considerable quantities of redwood, the stumps and saw-pits remaining to this day as proofs of the fact. Although but few evidences in the shape of sawed lumber are now extant, yet it is a fact that redwood posts are still stand-

ing in the ground in these localities, landmarks of Russian occupation, which are apparently as sound as the day they were set up.

The real development of redwood as an element in the lumber world did not commence, however, till the absorption and settlement of California by the United States, when American energy and enterprise entered upon the development of the new acquisition on the western shore.

Of this remarkable timber Humboldt originally had about 510,000 acres, or in round figures, 500,000 acres. From the date of settlement to the present time, it is estimated that about 90,000 acres of redwood have been timbered off, leaving as a present holding 410,000 acres. This area would be somewhat reduced upon close estimation, as it embraces considerable quantities of spruce, fir, pine, hemlock, and white cedar. The forests extends in an irregular belt 108 miles through the county from its southern to its northern limits, varying in width from two or three miles to fifteen and twenty miles. The territory covered embraces level river bottoms, high table and rolling land, and steep hills, generally covered with a dense tangle of undergrowth. The most competent timber experts reckon upon an average of 50,000 feet of merchantable lumber to the acre, besides which there must be taken into consideration the refuse, shingle bolts, railroad ties, fence posts, etc., which yield nearly an equal value.

The following compilation of redwood areas, classified, will give a comprehensive idea of the holdings at present, and the changes taking place during the past two or three years. The amounts are given in round figures, taking as a basis an original stand of 500,000 acres of redwood.

In the hands of those who are now operating:

A. B. Hammond and Vance Lumber Company.....	50,000
Pacific Lumber Company	50,000
Dolbeer & Carson	20,000
Freshwater Lumber Company	25,000
Isaac Minor	4,000
Eel River Valley Lumber Company	2,000
McKay & Company	2,000



THE FOREST PRIMEVAL

Elk River Mill & Lumber Company	8,000
Bayside Mill & Lumber Company	2,000
Northern Redwood Lumber Company.....	12,000

Total175,000

In the hands of investing capitalists, who have purchased within the past four years:

David Ward, Detroit, Michigan	30,000
C. A. Smith, Minnesota	30,000
J. E. Henry & Sons, Lincoln, N. H.....	30,000
Henry Swart and others, Marinette, Wis.....	10,000
Hamilton & Merryman, Marinette, Wis	12,000
McClure & Rupp, Saginaw, Mich	15,000
Kane Lumber Company, Penn.....	20,000
Warren Timber Company, Penn.....	15,000

Total	162,000
Miscellaneous small holdings	73,000
Estimated to have been lumbered off.....	90,000

Grand total500,000

The bulk of transfers two or three years ago was on a basis of from thirty to fifty cents a thousand for estimated standing timber. These figures have gradually been hardening, until at the present time no desirable holding of available timber can be had for less than 50 cents to \$1.00 a thousand for estimated standing timber. The choice holdings will command from \$1.50 to \$5.00 per thousand, and the upward tendency is very pronounced, with every indication of steady appreciation for several years, being stimulated by railroad projecting; that is to say, that hereafter deals will be made more closely based on actual operating values.

Where redwood stumpage is bought for operating purposes, it commands from \$1.50 to \$5.00 a thousand.

One remarkable feature of the redwood forests, and which will commend itself to the investigating capitalist, is its positive assurance and absolute immunity from destruction by fire. This immunity arises from two causes: The redwood is non-resinous, the trunks are covered with a soft, fibrous bark from four to sixteen inches thick, according to age, and no forest fire seems able to affect a tree after it has attained six to eight inches in diameter. And second, in the dense, tall, old redwoods, the rays of the sun are so effectually

excluded, so much moisture is retained in the soil and tangled undergrowth, and the trees gather so much moisture from the ocean fogs, which in turn they discharge in drippings to the ground beneath, that fires do not make much headway or produce much heat, as is the case in pine forests.

Nature has thus provided a positive assurance against loss by fire in such an investment. The writer of this once measured a fallen tree fourteen feet in diameter; over one hundred feet from where its roots had been up-turned, was a redwood fully ten feet in diameter, which had grown against the fallen log in such manner that it had partly grown over it. The standing tree could not have been less than five hundred years old, and yet the fallen log had not been greatly injured by fire; it had many thousand feet of timber in it.

Such a thing as a destructive forest fire is unknown in redwood timber. In fact, it is impossible to burn a redwood forest. This is shown by the method of logging here, which arouses the greatest surprise among those accustomed to working in pine. After the trees are felled, and freed of limbs and bark, a fire is set and all the trash and underbrush burned off. The fire never penetrates the standing timber, and the logs on the ground are not injured in the least.

Under the American development, so far as authentic accounts give us history, the manufacture of lumber in Humboldt was commenced in 1850, but the manufacture of redwood for the lumber market did not commence until 1855. Those who engaged in the lumbering business were eastern men, from the Provinces, and from Maine, accustomed to the pine, spruce and fir of that region. They knew those, and kindred varieties of timber, and their adaptability to the manufacture of lumber and construction work, but by reason of both the incapacity of the mills at that time to handle the large redwood logs, and lack of knowledge as to their adaptability for lumber manufacture, no redwood was manufactured or shipped from Humboldt till 1855. As a proof of this statement, it is only necessary to mention the fact that the first cargo of lumber that was manufactured and shipped, was in 1851; it was sawed at the "Pappoose" mill, owned by Martin White, which mill had a capacity of about 4000 feet a day. From that initial cargo of lumber from



AMONG THE REDWOODS

Humboldt in 1851 to the summer of 1855, all the lumber manufactured and shipped from Humboldt Bay was spruce, pine and fir.

In the summer of 1855, the Muley mill, (then operated by William Carson), by picking out the smaller logs, and not handling anything that exceeded five feet in diameter, got out a cargo of 200,000 feet of redwood lumber and shipped it to San Francisco on the brig Tigress. From that time on, the manufacture of redwood increased; but slowly up to 1862, mainly on account of the incapacity of the sash and Muley saws to cut the huge logs. In 1862 the circular saw was introduced, when the manufacture of redwood gradually attained greater dimensions.

As early as 1852 a commission was appointed, composed of Hon. James T. Ryan and W. H. Kingsbury on the part of the mill-owners, and William Carson on the part of the loggers, to adopt a standard of measurement for the scaling of logs. They decided that all logs twelve feet long and sixteen inches and up, to and including thirty inches in diameter, should be measured by the Spaulding scale, and that all over that size should be measured by the Scribner scale. These provisions for log measurement applied to spruce, pine and fir only. There was never in the pioneer days, and is not now, any exact rule, method or scale by which to measure redwood, on account of the size, shape and peculiarities of the timber; then as now it was scaled by a method made up of both the Spaulding and Scribner rules, combined with the judgment of the scaler. The logs for the first few years were cut where Eureka now stands and rolled into the bay and floated to the several mills.

While Humboldt was not the first to manufacture redwood into lumber, yet, after 1862, when the circular saw came into use, it soon took and has always held a leading position as a source of redwood lumber for both the San Francisco market and the lower coast.

The gradual growth of the manufacture of redwood lumber cannot be given in exact terms, as there exists no authentic record of the annual output, until 1889. However, a fairly correct estimate can be made by approximating the acreage timbered off. By this means, it is found that from 1855, up to and including 1888, there had been cut of mer-

chantable lumber in Humboldt 2,498,213,317 feet, board measure, which would average 7,551,919 feet annually for thirty-three years, the time from 1855 to 1888 inclusive. But as there was but a single cargo of about 200,000 feet cut and shipped in 1855, and the manufacture increased but slowly until 1862, it is not likely that one million feet were cut and shipped in any one year until the adoption of the circular saw in 1862, when the increase progressed more rapidly.

LUMBER SHIPMENTS---MILL PRODUCTS OF ALL KINDS.

Year	Lumber, ft., B. M.	Value	Year	Lumber, ft., B. M.	Value
1889	120,545,800	\$2,296,135	1897	133,717,278	\$1,778,085
1890	161,455,000	3,067,645	1898	128,291,255	1,802,330
1891	152,517,613	2,897,834	1899	163,640,590	2,336,000
1892	166,835,262	2,502,828	1900	162,635,560	2,242,520
1893	152,749,713	2,222,610	1901	305,275,198	3,007,038
1894	111,751,264	1,588,575	1902	210,429,256	3,462,633
1895	128,785,709	1,795,410	1903	264,007,781	4,646,610
1896	100,460,581	1,320,005			

Thus it is seen that in the last fifteen years, the lumber cut has trebled in volume, and those in best position to know, hold that the outlook is favorable for a twenty-five per cent increase in production the present year, over that of 1903.

From the crude methods in vogue in 1851 when the first sawlog was rolled into Humboldt Bay, the successive stages of improvement in lumbering forms an interesting chapter in the history of Humboldt's progress. The first logs handled were small, and were moved by means of ox teams on bob-sleds; then heavy trucks with solid wooden wheels, bound with heavy iron bands, were employed for the longer distances. Thus the pioneer lumbermen worked, selecting such logs as they were able to handle with the means they had.

The more notable improvements that have been made in the half century from 1852 to 1903 may be summed up briefly as follows: In 1862 the circular saw was introduced; this brought the need of surer, quicker means of getting logs to the mill; the steam locomotive and railroad were put in operation in 1874; 1882 the steam donkey; 1886 the band saw, 1892 the bull-donkey. Each advance seemed to solve and



A MONSTER TREE

settle the problem of the need of better methods, but each in turn has developed accentuated needs in other directions, and now when it would seem that perfection had been so nearly reached, we are at this date promised new methods as important as any that have preceded in the electric saw for felling trees and sawing logs.

Redwood is a soft timber, yet among the many varieties of timber that have come prominently to the front in construction work, it is safe to say that none has developed so many and excellent qualities, or such a wide range of adaptability as the redwood of California. In classifying lumber cut from redwood lands into three classes, the proportion would be as follows: The first quality would average fifty-five per cent; second quality thirty per cent; the refuse or third quality, fifteen per cent. Each one of these classes is often sub-divided into several grades. The third class is divided into two or three grades, and is used extensively for doors, windows, panel-work, wainscoting and all construction in which short material can be used.

There are at this time in active operation lumber mills as follows:

FIRM	LOCATION
Pacific Lumber Company	Scotia
Eel River Valley Lumber Company	Newburg
Elk River Mill & Lumber Company	Elk River
Bayside Mill & Lumber Company	Eureka
McKay & Company	Eureka
Dolbeer & Carson	Eureka
Vance Redwood Lumber Company	Samoa
Minor Mill & Lumbe Company	Glendale
Northern Redwood Lumber Company	Riverside Mill
	Korbel mill

CAPACITY OF LUMBER MILLS.

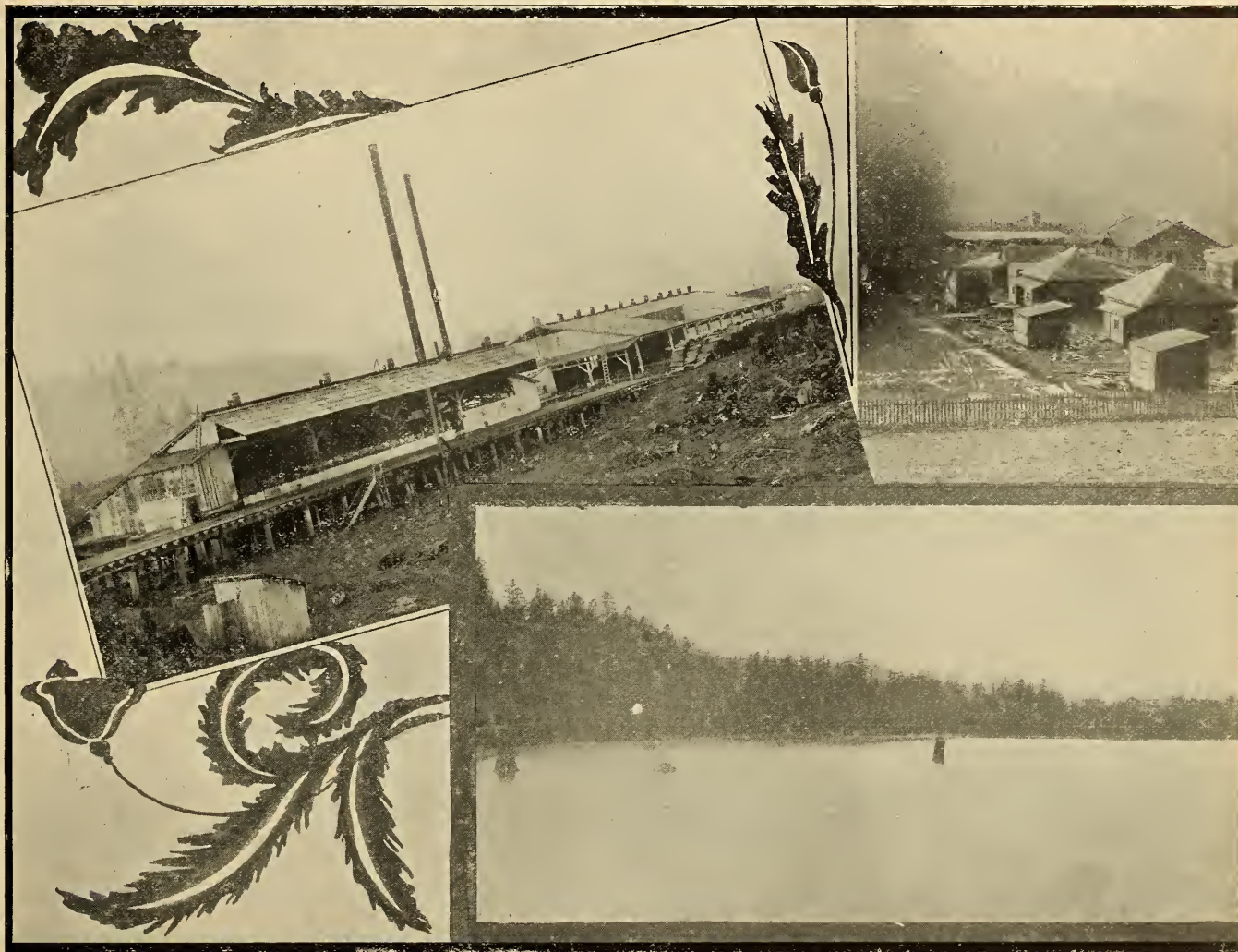
Company	Location	Annual Capacity	Value of Plant and Holdings
Pacific Lumber Company ...	Scotia	65,000,000	\$4,000,000
Dolbeer & Carson.....	Eureka	25,000,000	3,000,000
Vance Redwood L. Co.....	West Eureka	60,000,000	4,000,000
Northern Redwood L. Co.....	Korbel & R'side	60,000,000	2,000,000
L. Minor.....	Glendale	15,000,000	1,000,000
Bayside M. & L. Co.....	Eureka	15,000,000	500,000
Elk River M & L. Co.....	Elk River	15,000,000	1,000,000
Eel River Valley L. Co.....	Newburg	15,000,000	500,000
McKay & Co.....	Eureka	15,000,000	500,000
Freshwater Lumber Co.....	Eureka	*	2,000,000

* Not Operating.

REDWOOD PRODUCTS CLASSIFIED.

Year	Lumber, feet	Shingles	Shakes	Pickets	Posts	Laths	Doors	Mouldings, Lineal Feet	Tank Material Feet	Bolts Cords
1888	138,371,914	258,135,250	25,075,425	292,340	62,689	228,750	3,590	750,000	491,000	7,270
1889	123,529,434	276,149,600	26,061,375	339,793	112,678	199,000	3,900	850,000	1,221,000	9,570
1890	128,139,341	301,753,200	24,539,830	372,452	49,559	382,500	3,638	746,000	757,000	14,209
1891	120,937,354	296,387,820	24,028,650	355,231	72,880	632,000	3,555	656,000	1,052,000	8,746
1892	127,447,967	303,118,250	20,611,625	321,383	42,696	328,450	5,135	512,000	70,000	1,242
1893	110,135,835	334,203,750	18,759,725	30,250	74,327	303,000	8,604	373,000	*	1,309
1894	77,496,243	253,954,500	20,956,925	27,760	23,254	50,000	7,690	204,000	*	408
1895	87,859,831	297,937,500	16,434,775	11,700	22,535	*	4,214	241,200	*	861
1896	68,765,545	239,350,000	12,392,450	34,435	37,033	*	7,157	230,600	*	1,557
1897	84,904,043	367,290,250	18,453,475	39,756	102,073	48,100	3,514	1,109,600	*	2,083
1898	83,075,760	365,516,500	15,222,475	47,630	62,223	264,000	3,583	125,000	50,000	820
1899	105,478,170	441,563,000	13,881,225	22,141	125,046	10,000	4,850	805,000	97,995	2,222
1900	99,766,348	447,018,000	16,693,775	57,970	60,392	15,000	7,220	857,400	*	1,977
1901	139,864,180	584,532,250	17,186,300	123,830	72,527	*	23,915	6,284,000	*	2,224
1902	141,241,256	623,788,000	17,023,000	90,800	44,474	*	82,454	12,051,200	*	2,369
1903	182,056,015	699,432,725	18,232,500	198,878	44,985	*	36,247	17,850,100	*	2,372

*Included in first column under heading "Lumber."



The Shingle Mill

VIEWS OF THE PLANT OF THE FRESHWATER LUMBER CO
Cottages in the New Town

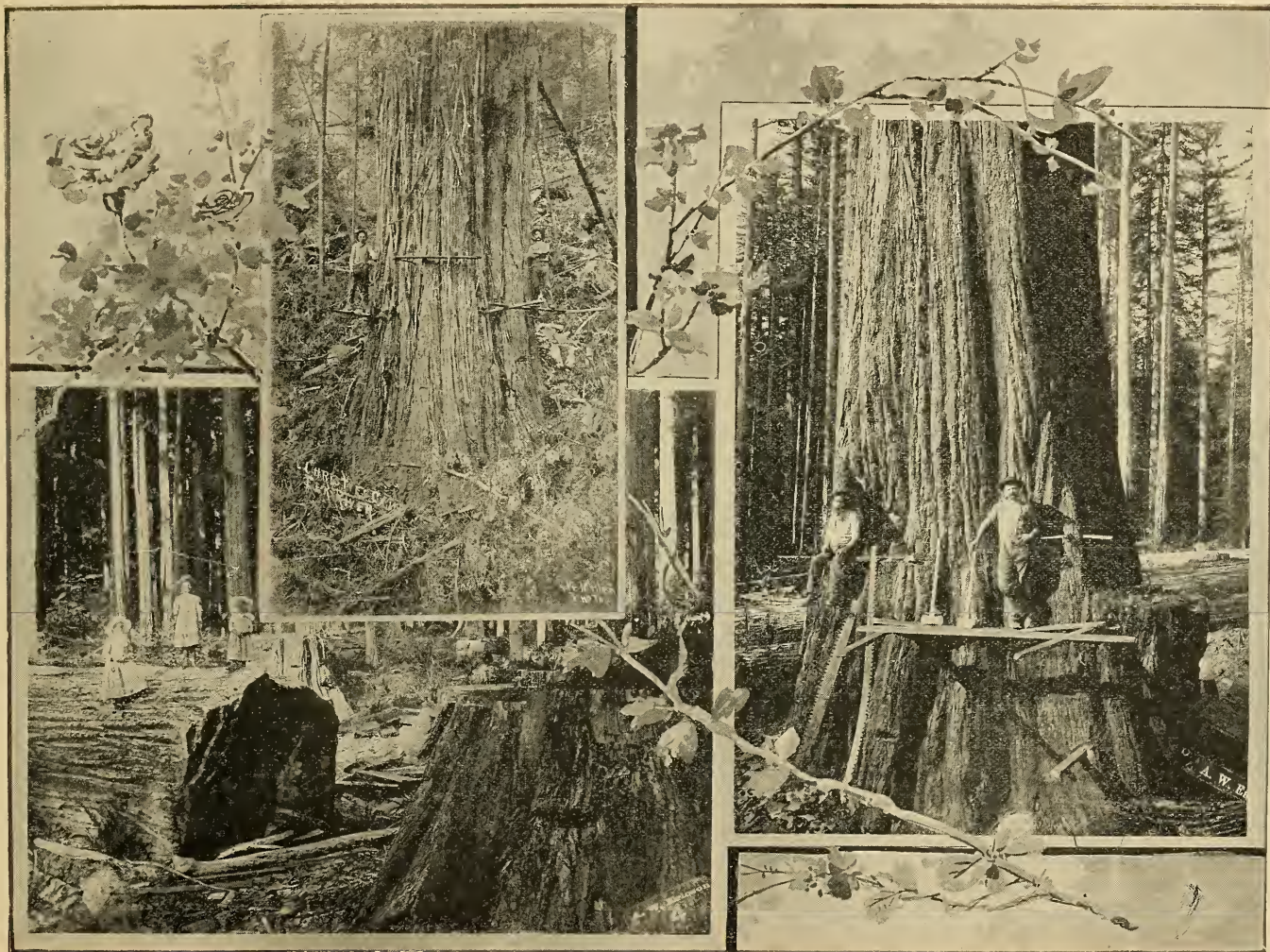


VIEWS OF THE PLANT OF THE MINOR MILL AND LUMBER COMPANY AT GLENDALE



MPANY AT FRESHWATER, NOW IN COURSE OF CONSTRUCTION
Immense Pond for Storing Logs, Just Completed

A Stock of Shingle Bolts



THE WOODSMAN'S ATTACK



The Shingle Mill

VIEWS OF THE PLANT OF THE FRESHWATER LUMBER COMPANY AT FRESHWATER, NOW IN COURSE OF CONSTRUCTION
Cottages in the New Town
Immense Pond for Storing Logs, Just Completed

A Stock of Shingle Rolls

EXPORTS OF LUMBER AND FOREST PRODUCTS OF ALL KINDS DURING 1903.

	Ft., Pes., M's, Etc.	Value.
Lumber (sawed) board feet	182,056,015	\$3,338,213
Shingles, 1,000's	699,432¾	1,050,060
Shakes, 1,000's	18,232½	182,364
Railroad Ties, pieces	183,224	73,878
Pickets, pieces	198,878	2,852
Posts, pieces	44,985	4,585
Stave and Stave Bolts, cords	1,025	11,134
Doors, pieces	36,247	36,247
Mouldings, bundles	25,643	89,751
Sash, crates	2,197	3,662
Butter Boxes, new, pieces	1,785	3,570
Butter Moulds, new, pieces	76	7,600

Total value of Lumber and other Forest Products (values estimated)\$4,803,916

TO WHAT PORTS SHIPPED.

Domestic	Lumber, Ft.	Shingles, M.	Shakes, M.	Total Ft.	Value
San Francisco	88,860,639	213,067	8,400¼	112,987,422	\$1,914,834
San Pedro	45,752,482	193,033¼	7,610¾	67,592,557	1,143,445
San Diego	3,992,204	8,728¼	507	5,034,054	86,036
Portland	5,070,625	44,628¼	35	9,445,117	153,493
Los Medanos	3,375,723	214,019¼	636	24,989,648	384,776
Redondo	4,765,907	16,962¼	754	6,712,465	113,989
Ventura	385,000	301	100	448,433	7,996
Grays Harbor	569,209			569,209	9,677
Seattle	1,164,698			1,164,698	19,800
Santa Barbara	285,400	728	50	374,867	6,444
Antioch	188,050	750	50	279,717	4,822
Domestic Totals	154,409,937	692,207½	18,202½	229,698,187	\$3,845,306

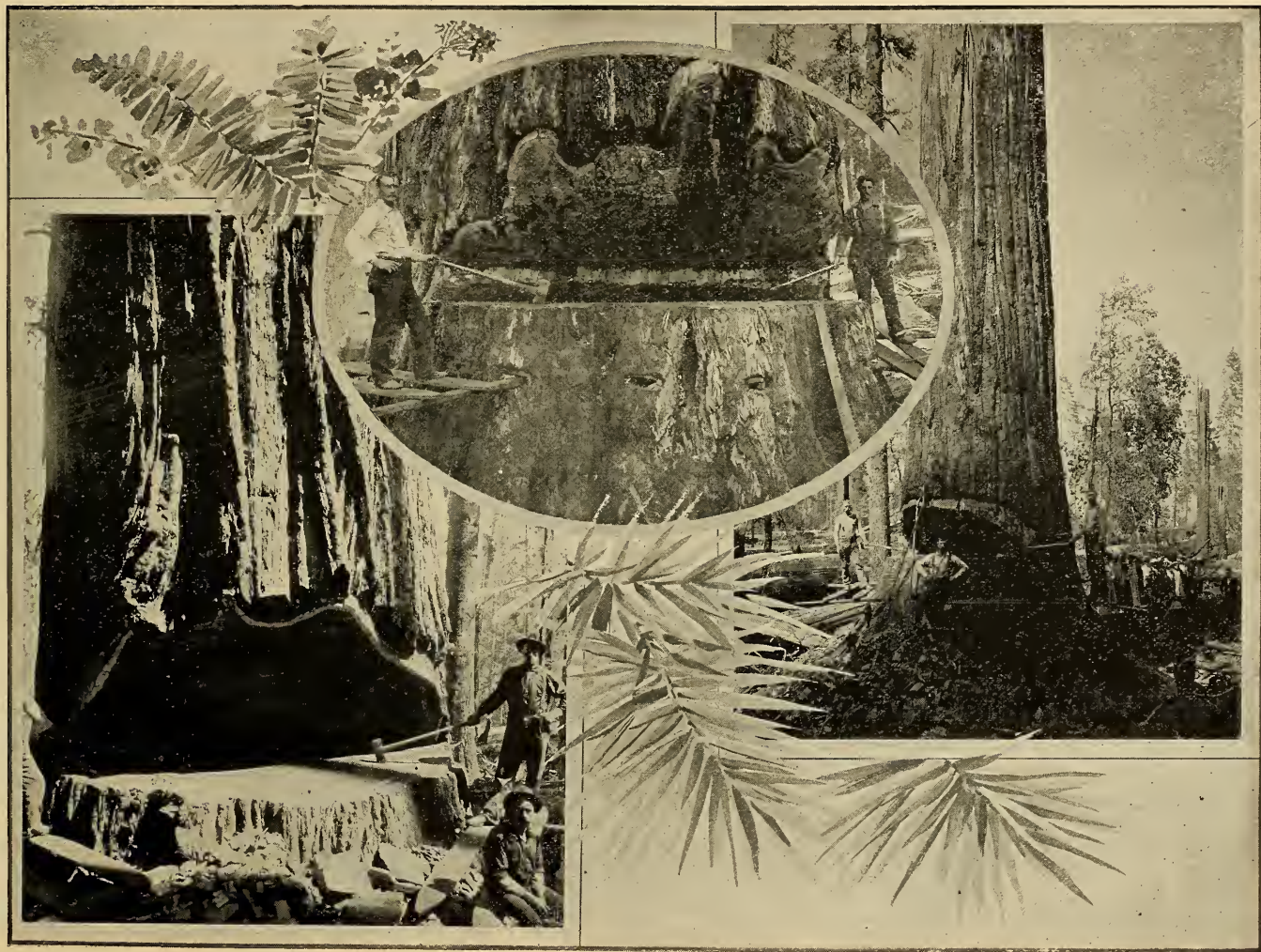
ISLAND AMERICAN PORTS—

	*Lumber, Ft.	Shingles, M.	Shakes, M.	Total Ft.	Value
Hawaiian Islands	3,870,174	4,328¼	5	4,272,331	\$ 80,182
Philippine Islands	798,748			798,748	12,315
Island Totals	4,668,922	4,328¼	5	5,071,079	\$ 92,497

FOREIGN PORTS—

Australia	14,834,237	2,422		15,039,537	\$ 401,527
Mexico,	5,973,894	475	25	6,025,727	81,389
England	2,326,332			2,326,332	64,310
Scotland	1,996,426			1,996,426	55,503
Ireland	1,540,801			1,540,801	42,387
South Africa	1,206,550			1,206,550	32,576
New Zealand	643,044			643,044	19,613
Tasmania	460,098			460,098	11,502
Foreign Totals	28,981,382	2,897	25	29,238,515	\$ 708,807
Totals, all Ports, 1903	188,060,241	699,432¾	18,232½	264,007,781	\$4,646,610
Totals, all Ports, 1902	141,241,256	623,788	17,023	210,429,256	3,462,633
Excess over 1902	46,818,985	75,644¾	1,209¼	53,578,525	\$1,183,977

*Note—Under the column "Lumber Ft." to "Island American" Ports, and to Foreign Ports is included, besides lumber proper, also railroad ties, pickets, and posts that were shipped thereto. All above values and amounts are taken from the sworn shippers' manifests on file in the U. S. Customs House, this Port, as to Island Ports and Foreign Ports.



THE UNDERCUT

The market for redwood at the present time covers a wide field, besides the United States. Looking over the destinations of foreign shipments, one will find cargoes of redwood lumber going to England, Scotland, Ireland, Australia, New Zealand, Sandwich Islands, Mexico and N. S. Wales.

It will be noticed from the foregoing table that the manufacture of lumber and its kindred products largely increased in 1903 over the previous year, and in fact, over many previous years. This was due in great measure to the prosperous condition of the country at large, and the consequent demand for building material. Redwood is finding its way into the markets of the east, and the foreign demand is far beyond what it has ever been before. The total foreign shipments in 1903 amounted in round figures to 29,000,000 feet.

Notwithstanding the great increase in manufacture, the price of redwood lumber has steadily advanced, until now it is the highest it has been for many years. The mills are being improved and enlarged and the present year will see an output probably twenty-five per cent greater than that of any previous twelve months.

The details of the forest product exports during 1901, will undoubtedly prove interesting. They are given herewith, the figures being taken from the official annual report of the Board of Harbor Commissioners.

It has been stated that the present year promises to be a banner one for this county, as far as redwood products are concerned. The influx of eastern capitalists in the past few years, their purchase of plants and timber lands, their enlargement of the plants and preparations now under way to build new ones, gives the certainty of a far larger product this year than ever before. This movement from the outside began with the purchase by A. B. Hammond and associates of the plant of the John Vance Mill & Lumber Company, comprising mill, timber lands and railroad. Additional tracts of timber lands have been purchased, the railroad extended and the mill enlarged. Besides, a sash and door factory and a moulding mill have been added to the plant.

More recently, a notable investment by eastern people was the purchase of the immense plant and holdings of the Pacific Lumber Company by Hiram C. Smith and associates. These investors are friendly to the Santa Fe railroad, and

following the acquirement by the latter of three local railroads, they entered the field, and took over the property mentioned. There, also, great improvements have been made—the capacity of the plant increased and the timber holdings added to until it is now an immense enterprise and one of the chief factors in developing the county, and maintaining its prosperity.

The Freshwater Lumber Company is another new corporation, backed by immense wealth. Mr. Eddy, is one of the chief owners and at the head of it. This company purchased the holdings of the Excelsior Redwood Company, added other lands to these and is now engaged in the erection of an immense plant, and the building of a railroad to connect with the local Santa Fe line, and thus enter Eureka.

Others, also, have entered and are entering this field. The site is being prepared now for the erection of a mill by the Holmes Lumber Company, near the western limits of the city. And changes have taken place with local concerns. During the past year the plants of the Riverside and Korbel companies were merged under the control of the Northern Redwood Company, resulting in much improvement being made in both mills. All in all, 1904 will, without doubt, prove a year of marvelous activity, compared with previous like periods.

In the matter of testimony and proof as to the many merits of redwood, it would be impossible to give them. A few are appended which have served to crystallize the minds of the people upon the facts as they exist. It is certain that no timber has been so much relied on, or so carelessly used, with such general good results. In the hurry and rush of the wonderful development of the western shore, redwood has been used in every need in structural work; taken dripping with sap or water from the forest or pond, run through the saw mill, and hurried into place without a day's time in which to season, used for main timbers or for furnishing, it is only occasionally that a piece shows the effect of shrinkage upon becoming dry; and it takes paint and holds it equally well in any condition.

One writer has put it that "San Francisco, a city of 400,000 inhabitants, with over three-fourths of its buildings sided and shingled with redwood, need not be ashamed to compare fire records with any city in the United States,



HANDLING THE LOGS IN THE WOODS

When Oxen were Used

Horses Followed the Oxen

The "Bull Donkey" Engine now does the Work

whether built largely of brick or other materials," so slow is it to ignite, and easily extinguished when fired.

Eureka, a city built entirely of redwood, with the lumbering mills built all along its northern edge, thus subjecting the whole city to the fire risks from the line of mills during the northern trade winds, has never had a destructive conflagration, such as has visited every other California city once and more.

All the Pacific Coast railroads use redwood ties on all their lines as far as the cost of transportation will allow. Their testimony is that redwood ties do not rot and are impervious to the attack of all insects by reason of the acid the wood contains.

After reviewing the non-combustible qualities of redwood, Charles Towe, fire marshal of San Francisco, says: "I sincerely hope we shall never see other woods substituted for redwood; and I wish the proper authorities would throw the mantle of protection around our redwood, so as to prohibit its total destruction."

George H. Tyson, general agent for the Pacific Department of the German American Insurance Company of New York, writes: "From an intimate knowledge of the fires that have occurred on this Coast during the last sixteen years, I can state without fear of contradiction, that as slow-burning wood, the California redwood has no equal. * * *

In the insurance business on this Coast, it is a well-known fact that in our Coast counties, where redwood is largely used for the construction of frame buildings, a much lower rate is charged than in the northwest district and mountain counties of California where other woods are exclusively used."

W. G. Curtis, of the Southern Pacific Railroad Company says: "As indicating the great life of this timber against ordinary decay, I have pleasure in informing you that we have today left in sidetracks not very much used, some redwood ties which were put into service in 1855. On other parts of the line, we have in service many ties that were laid from twenty-five to thirty years ago. For the siding and roofing of cars, for the foundations, siding and roofing of buildings and for water tanks, this timber is the most durable of any that I know of, and when used for building purposes it has

the valuable quality of not being easily set on fire, and when set on fire, it burns very slowly."

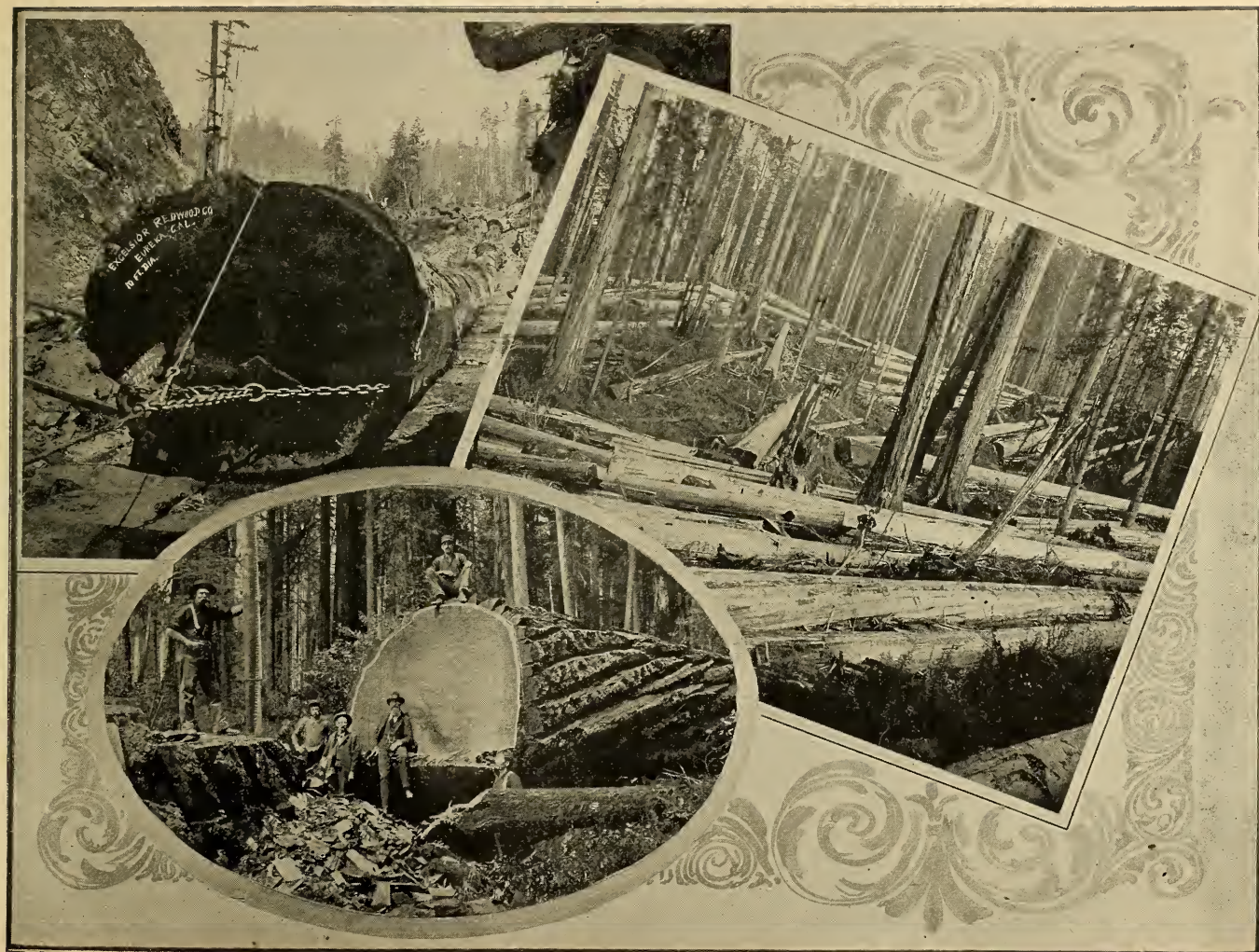
H. J. Small, Superintendent of Motive Power and the Machinery Department of the Southern Pacific Railroad, testifies to substantially the same facts.

W. B. Storey, of the Santa Fe Railroad, concluding a letter of some length commending redwood for car work and railroad construction, says: "In conclusion, I would say that we consider it one of our most valuable woods in railroad construction, and I heartily recommend its use for all purposes as above described."

In 1897 B. F. Durphy, then of the Vance Redwood Company, selected and shipped to the New England Piano Co., in Boston, Mass., a cargo of redwood, and it was made up into piano cases and exhibited. It was a special exhibit at their salesroom on Washington street and attracted much interest and attention. It was placed side by side with the fine mahoganies, rose-wood, black walnut and ebony pianos, and was considered as fine, beautiful and desirable an instrument as any made. This test of the use of redwood for piano cases has been so completely successful and satisfactory that it has become very popular and in great demand for the fine finish of costly houses throughout New England.

The well-known piano firm of Vose & Sons, in Boston, Mass., one of the largest piano firms in the United States, in 1898 ordered several carloads of redwood, to be worked up into piano cases. In the early history of piano manufacture, Mr. Vose had a thorough test made of all the different woods grown in the United States and in some foreign countries, and it was demonstrated and established beyond all question that redwood made the most perfect sounding board for pianos of any wood known; besides, it had a great advantage in that it would not warp, twist or crack.

In 1874, the lumber firm of Abbott & Co., of Boston, Mass., large lumber dealers, loaded five million redwood shingles on one of their ships in San Francisco, and transported them to Boston. The next year these shingles were sold to the Fitchburg Railroad Company. This company had a large stock-yard out at Uniontown, and had erected sheds for sheltering their stock. The roofs of these sheds were covered with a patent roofing, but on account of the flat pitch of the



SCENES IN THE WOODS OF THE FRESHWATER LUMBER COMPANY

roof it proved unsatisfactory. The company had this patent roofing removed and a part of it replaced with redwood shingles. The other roofs were replaced with some shingles from New England and Michigan. Those replaced with the New England and Michigan shingles were completely worn out and decayed in 1897. In 1892 there were but a very few cedar shingles left on some of the roofs. In 1898 the redwood shingles that had been used on the other roofs were sound and all on the roof and in perfect condition, so far as their being warped and decayed is concerned; the only breaches being where the nails had rusted off and the wind had blown the shingles away.

There was adjoining these sheds a large stock barn which was built five years later than the date the shingles were placed on the shed; this barn was shingled with New England shingles, as the Railroad Company could procure no more redwood shingles; the roof was very much steeper and the shingles should have lasted much longer than the shingles on the shed, but were completely decayed and the barn nearly bare of shingles in 1892. In 1890 the Fitchburg Railroad Company made inquiries of all the New England lumber dealers who would be likely to have redwood shingles, with the object of getting them for the purpose of reshingling these buildings, and they refused to accept any but redwood shingles.

It is a common method in vogue among the lumber dealers in and around Boston to send their customers out to the old Union Stock Yards of the Fitchburg Railroad Company, to show them that there is no shingle known, having the value and durability of the redwood shingle; and those shingles, used in 1874, are now the strongest argument they can and do use against other shingles and in favor of the redwood.

William Roch, who was a director and the purchasing agent of the Santa Fe Railroad when it was first put in operation in the central states, was the first purchasing agent of what is now the Santa Fe system in California. Mr. Roch purchased and shipped around the Horn from Boston a large quantity of machinery, cars, engines, railroad iron, etc., and on the return trip ladened the several vessels employed with redwood. He used a part of these cargoes to build his summer residence at the sea-shore in those earlier days. That

residence at the sea-side is now one of the most perfect buildings there. It was built entirely of redwood lumber and redwood shingles; the doors and window frames are perfect, never having warped or twisted, and the shingles on the roofs are the same that were put on when it was built twenty years ago. They are in much better condition than those on many other fine residences built ten and fifteen years later. This residence in the far east is a monument of credit to the excellence and durability of redwood, and is continually referred to as proof of its many merits by lumber merchants.

In 1899, after the loss of the Boston and Portland (Me.) steamship, the steamship company entered into a contract for the building of a magnificent steamer to take the place of the one lost, to run from Boston to Portland, Maine. The steamer was to cost nearly two million dollars, and there was great competition among lumber dealers to secure the order for furnishing the lumber. The matter was submitted to a board of architects, who examined all the woods to be used in the finishing work, both plain and ornamental, and the contract was awarded to Mr. Smith of the Bartlett Lumber Company, to furnish this finishing material, and the specifications called for redwood for this purpose. Among the statistics used in reaching this decision were important facts furnished by the late H. D. Bendixsen of Humboldt, in his report to the board of architects, who investigated the subject; which report convinced the board of the superiority of redwood for inside finish for cabins, staterooms, etc.

Another still more notable triumph for redwood in the various tests in fine and rich finishing work, was presented at the World's Fair at Chicago, by the Pennsylvania Railroad Company. The Pennsylvania Railroad Company, in 1892, built a magnificent train of passenger coaches to run from New York to Chicago. Immediately following this move, the New York Central ordered a richly finished train built, which was accounted a finer equipment. The Pennsylvania Railroad then ordered another splendidly finished and appointed train to best their competitors of the New York Central; and again the New York Central followed suit by ordering another train to compete in magnificence and out-do the Pennsylvania Company in richness and beauty. Then the Pennsylvania Company, after considering the course pursued by their compet-



Making Up a Train of Logs

A Skid Road

Loading on the Cars

itors carefully, went to George Pullman and explained the situation, and what they wanted, which was to have the finest passenger train in the world to run from New York to Chicago, and it was left entirely to him how, and of what materials it should be constructed—the only point insisted upon was that it should be the most completely equipped and magnificently appointed train in the world. Mr. Pullman drew a plan for a train of cars in which were included an observation car, library car, dining car, and several compartment sleeping cars. In the specifications for the work the material selected for all of the inside finish was redwood. When placed upon the road it was acknowledged then, and for a long time afterwards to be the most magnificent and complete railroad train in the world.

Other uses for redwood are almost past numeration. It goes to the Argentine Republic and to the East India Islands where the red ant is known to be so destructive to all other woods, which they perforate, eat and destroy, while the redwood remains wholly untouched. It is used for doors, window frames, etc., where the people are able to purchase it in these distant localities.

Mr. Hearst, proprietor of the New York Journal, has finished his private office in the various qualities and different grains of redwood. The effects are beyond description.

In 1898 a folding bedstead of redwood was made in San Francisco by one of the bankers there and sent to the ruler of Denmark as a present, and it was placed in his sleeping apartment for his personal use.

Some time ago an order was offered here by the Chicago Curtain Pole and Fixture Company for fifty car loads of lumber, being intended for ironing boards, cake-boards, screen-door frames, curtain poles, mouldings, picture frames, etc.

The scientific wood expert of the New York Central Railroad Company, being instructed to make an exhaustive test of all woods available, and particularly of cypress and redwood, as to their value and adaptability for car-building, reported to H. Walter Webb, Third Vice-President and Manager of the road, in favor of redwood for sheathing, siding and roofing, on account of its quality for holding paint, resisting fire, and that it does not warp or shrink, and is least subject to decay.

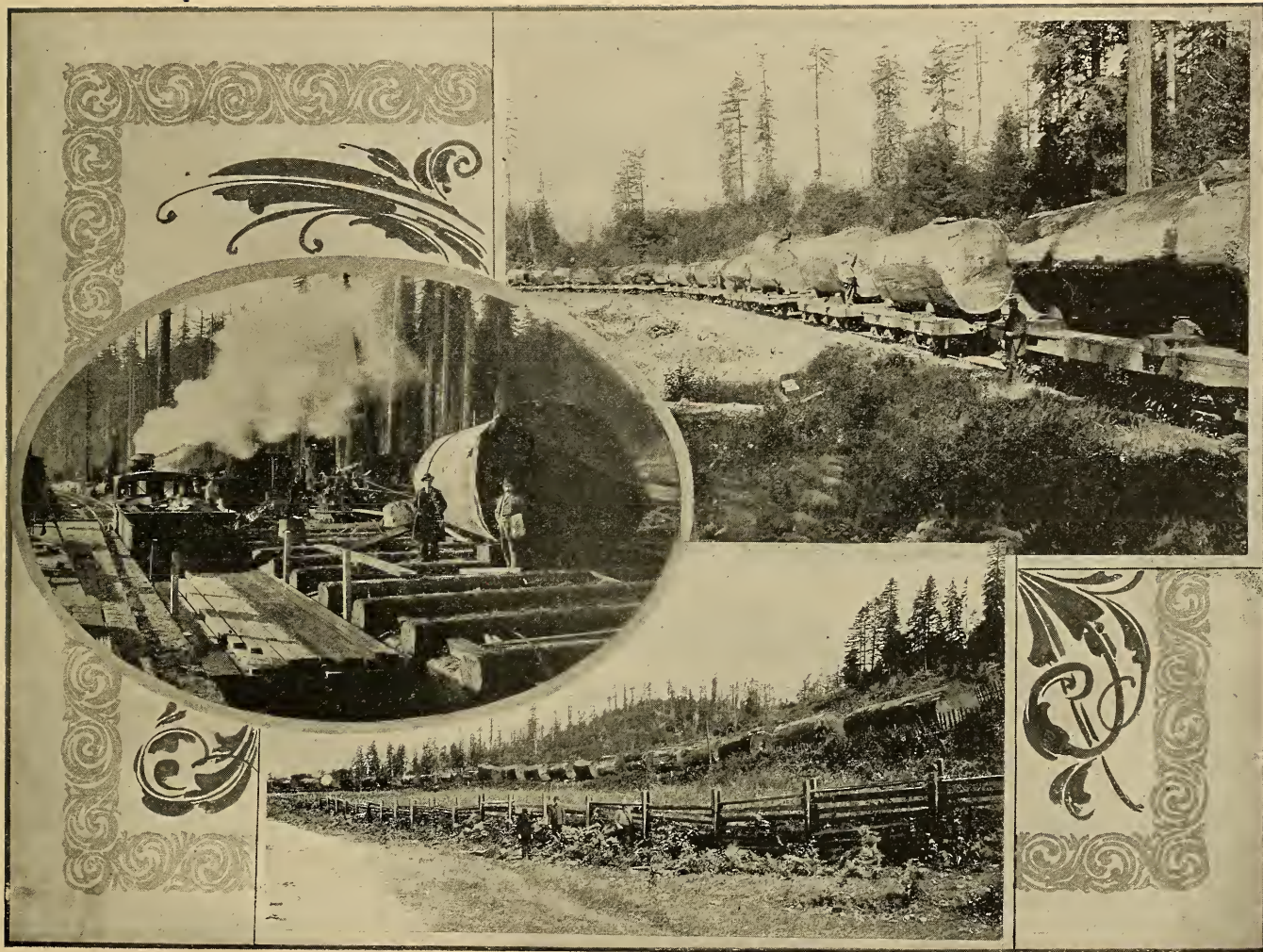
At present and for four years past, the first architects in Boston have made it a rule to embrace in all specifications to contractors, in all cases where Oregon and Washington shingles are to be used, that such shingles shall be well soaked in water before putting in place, for the reason that if put on dry and ordinarily close together, when wet, they will swell, crowd and warp to such an extent as to draw the nails and seriously injure the roof. No such provision is made in regard to redwood shingles, as they are not affected by the elements but in a very small degree.

The superintendent of the Boston and Maine Railroad built himself a fine residence in Exeter, N. H., and after careful observation and examination of all woods available for that purpose, decided that nothing but redwood should go into its construction.

In 1898, there was sent to Boston fifty doors made from redwood. These were placed on exhibition in the Mechanics Fair, after which they were given away—distributed among the various door manufacturers and dealers as samples. From this one practical advertisement, there are at present orders with one door company here for over one hundred thousand doors; this result coming directly from the free distribution of those fifty doors.

It would be hard to conceive of a limit to the uses of redwood, or to the possible market for it, if systematic and united effort were made to place before the people of sections where it is unknown the practicable evidences and testimonies of its merits, which may be had by diligent inquiry. The possibility for the expansion of the trade has been greatly enhanced since the freight rates from Humboldt to points east of the Rocky mountains and the Mississippi have been decreased and systematized. At this time redwood shingles can be shipped from Humboldt Bay to Chicago on a sixty cent rate and to New York and Boston via the Isthmus on a 67 1-2 cent rate, being the same rate allowed to other lumber districts. These reduced rates have made it possible for redwood to be used in the eastern States, and thus bring a demonstration and comparison of its merits home to the people in the various localities, particularly its superiority over all other soft woods as a finishing material and as shingles.

While the use of the higher grades of redwood is by



Ready for the Car

On the Way to the Mill

these reasons increased in the various branches of construction work, increased use for the lower and poorer grades is also extending. Quite an amount is now being used by the asphalt manufacturers. Since the development of the oil wells the industry has brought into use large quantities of the poorer grades for barrel purposes.

A popular make of lead pencils, "Dixon's Sequoia", proves that soft clear redwood is not surpassed by cedar or other woods for that purpose.

For general or special purposes redwood is thirty-five to forty per cent cheaper than Oregon or Washington cedar or eastern pine.

While among other woods the range of adaptability is narrow, redwood covers nearly every known use in construction work, for under ground or above ground work, for both inside and outside finish, for heavy work and light work, for durability or ornamentation.

Wherever the possibilities of transportation place it in competition with other woods on equal ground, the redwood scores a success without fail; and now that transportation is placing this lumber on the eastern seaboard at figures that make its use in the construction of fine residences possible, it may be reckoned upon as certain that in the very near future, the now worthless gigantic stumps will develop a value, and specially constructed mills will before long be erected to reduce them to merchantable building material, particularly for fine finishing work.

PINE.

Next in importance to redwood is the timber known as "Oregon pine," a species of fir. It is found mixed with redwood in the eastern edge of the redwood belt, and beyond that occurs in large and compact bodies. Within the past couple of years, since all of the redwood lands have been taken, investors have turned their attention toward the pine, and already much of it has been located. Pennsylvania capitalists have just concluded a deal by which they have come into the possession of 127,000 acres of pine lands lying in the eastern possession of 127,000 acres of pine lands lying in the eastern portion of Humboldt and the western portion of Trinity county. They have made arrangements for

the building of a railroad some sixty miles long into this tract, and have plans drawn for the erection of mills, one in the timber and another on the shores of this bay. Construction of the plant will begin this Spring, as soon as the weather will permit of the work being prosecuted to advantage. This will be the first operation of any consequence in the pine forests of Humboldt. Heretofore the only timber of that kind cut was for the ship-building yards, and was simply taken as it happened to be found with the redwoods.

There are other bodies of pine being held for investors, and it is only a question of a short time before they will be sold and plants erected to convert them into lumber.

OTHER TIMBER.

Of the mixed timbered lands, three-fifths to three-quarters is oak of the various species. The gathering of tan bark has become an important industry, but in this business, under present conditions, there is an almost criminal waste of millions of feet of most valuable wood, for the tan bark oak makes an excellent furniture timber, and is particularly adapted to chair-making. Thousands of cords of this wood are stripped of the bark every season, and left to rot on the mountain side.

The quality of tan bark found in this county is the very highest, partly explaining the fact that the leather made by the Devlin tannery, took the highest award at the World's Fair and other expositions. Thousands of cords of tan bark have been shipped out of the county, and there are still many thousands of cords to be gathered. The exports of tan bark will be less in the future probably, as there is now being operated at Briceland, in the southern part of the county, a plant to extract the active principle from the bark and put it in the form of a solid, looking something like resin, but of a dark-red color. The importance of this industry may be gauged by the fact that this plant cost over \$25,000, and yet will draw upon only a comparatively small portion of the tan bark area of the county. The plant is owned by the Wagner Leather Company, of Stockton, California.

The pepper wood, or California laurel, is a hard, beautiful wood, adapted to furniture and wooden ware, and is con-



Trains of Logs at the Freshwater Lumber Company

A Single Log a Carload



The Scotia Mill

Fottom Land Along Elk River

Mill and Pond of the Elk River Company, Falk

The Pond at Scotia



CLEAR REDWOOD PLANKS SHIPPED FROM THE VANCE REDWOOD CO.'S MILL AT SAMOA

The Samoa Mill

The Yard at Samoa

Part of the Samoa Plant

Clear Redwood Planks Without a Knot or Flaw

siderably used in mill and machine work. The black and white oaks are by no means devoid of merit, being strong, firm and durable, but have not as yet come into general use, mainly because their merits have not become known, and also because they are more difficult of access.

Madrone will rank next to oak in quantity of acreage, though it never occurs in bodies, being scattered through the oak, or redwood, but mainly occupying the higher ground, and crests of the ridges, as is also the case with the oaks. The madrone has a future before it as a furniture wood when there is need for it and manufacturers have learned to treat it successfully. When seasoned it is very hard and strong. The tree presents a beautiful appearance, giving a brilliant touch of color to the woods, with its bright red bark.

SCALE OF WAGES.

No article concerning the manufacture of redwood would be complete without a statement of the wages paid those

whose labor results in the finished product. The range is from \$1 to as high as \$10 per day, depending upon the class of work and the skill necessary to execute it. The lowest wage mentioned is for boys in the sash and door factories and the planing mills. Most of them, however, receive \$1.50 per day. The wages of the men in the woods and in the mills varies from \$2.50 to \$10. Ordinary rough labor commands the former price; from that the gradations are according to the skill necessary, the top figure of course, being paid to the foremen of departments and superintendents.

These figures include board, and it must be said that the table set for the laborers, both in the woods and at the mills, is far above that of other lumbering sections. The very best of food is furnished, and in great variety. In fact, visitors have often remarked, after partaking of the hospitality of the camps, that they had been better fed than at many first-class hotels.





ANOTHER VIEW OF THE PLANT OF THE



ONE VIEW OF THE IMMENSE LUMBERING PLANT OF THE PACIFIC LUMBER COMPANY AT SCOTIA



PACIFIC LUMBER COMPANY AT SCOTIA

REDWOOD; ITS DURABILITY AND OTHER CHARACTERISTICS.

How Redwood's Early Commercial History Blends with That of a Mighty Captain—Mute Record of a Half Century's Endurance—The Shingles' Durability as Testified to by Father Time, by Affidavit and by the Camera—Extent and Available Stands of Redwood Timber—Eureka, the Metropolis and Humboldt County the Mecca

of Redwood's Realm.

EUREKA, CAL., June 13.—Attention was first attracted to California by the discovery of gold in '49, but many who went to that then distant region as argonauts finally turned their attention to other pursuits and gradually its multitudinous resources and the beauties of its vegetation and climate came to be recognized and appreciated. Stories of its flowering and fruiting orange groves, its spicy, balmy breezes and perpetual sunshine were disseminated, and many went with a view of utilizing their energies in other manner than digging gold.

There is one grand resource in which California has no competitor. Other countries may rival its climate and production of fruits and flowers, but only in California can the redwood, that monarch of all trees, be found.

Having within its borders almost illimitable forests, the state is naturally a great lumber producer and today California and the other two great forest states of the west—Washington and Oregon—are the source from which the country expects to obtain its future supply of lumber.

Of all the vast forest resources of California the redwoods are the most famous and valuable, though not the greatest in extent. The redwood belt extends from the bay of San Francisco north to the Oregon line, with unimportant scattering bodies south of the bay. This belt is narrow, rather closely following the coast and broken at intervals. The chief redwood counties are Mendocino, Humboldt and Del Norte and of these the most important today is Humboldt, on account both of the quality and the quantity of its timber and its possession of the only good harbor north of San Francisco. This port, Eureka, on Humboldt bay, is also a natural center for lumber operations.

In gathering facts relative to Humboldt county's leading manufacture and export it has been found that they are most interestingly blended with incidents of early history and with one of our great national characters. Bucksport, located about two miles southerly from Eureka, immediately on the shores of the bay, nearly opposite the entrance to the harbor, was established in the winter of 1852-3 as a military post for the protection of the people of the county from the Indians. The position occupied by the post is a slightly one, on a plateau thirty or forty feet above the sandy beach

of the bay, from which the old photograph, reproduced herewith, was taken. The barracks and officers' quarters were erected in 1852 in the usual quadrangular form, around three sides of the parade ground, leaving the west side open and looking out upon the bay and ocean.

General U. S. Grant, then Captain Grant, reported at Bucksport for duty in the fall of the same year, in September, coming from San Francisco by sailing vessel. He remained until March the next year, and the fact that this post was the scene of one of the earliest military services of the man who was later to become a famous general, the nation's hero and savior, brings most forcibly to mind that these military quarters, erected a half century ago, just prior to his arrival, have become invaluable witnesses testifying to the merits of Humboldt's great staple—redwood. They were all standing as late as 1885, since which time they have been gradually torn down, and at present only the mess house and the shattered remains of the officers' quarters are left standing. Relic hunters and the driving blasts have deprived the officers' quarters of its roof and most of its siding. The nails which fastened the shingles have corroded and let free the shingles of the mess house, but the walls are sound and solid, and the frames of both doors and windows in these last two remaining landmarks have perfect joints, instead of open and parted joints as one might think after so many years of exposure and neglect. That the shingles covering these buildings and all the finishing work were redwood, and that in most part, despite the forty to fifty years of exposure, they are sound wood today, forms unimpeachable evidence of the great merit that redwood possesses, in that it does not rot, nor shrink, nor lose its form and shape, even in a 50-year test.

Ten years ago one of Eureka's citizens, Alexander Connick, seeing that these landmarks of early days were doomed to destruction, procured several thousand shingles from General Grant's old quarters, and they are being held as indubitable evidence of the durability of redwood shingles. Some were on exhibition at the World's Exposition at Chicago and today give promise of being as sound at the end of the present century as now.

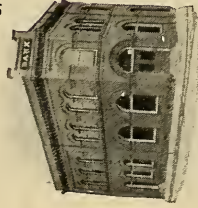


ANOTHER VIEW OF THE PLANT OF THE PACIFIC LUMBER COMPANY AT SCOTIA

But while these shingles and clapboards have resisted decay they have both been worn thin by the successive storms that have beaten upon them for fifty years, as shown by the front and edge views of one of the shingles taken from the Grant house. Situated to receive the full force of the northerly winds in summer, often charged with sand and gravel from the beach, and the driving blasts of the winter storms from the south, the soft wood is furrowed and grooved with the friction

they have endured. But there is no trace of rot to be seen and the wood still remaining, comprising, where exposed, about two-thirds of the original shingle, is not only sound but retains practically all of its strength and where broken or split shows bright and fresh as though it had but just left the saw. The full import of such a test as this cannot be grasped at first glance. As to the origin of the shingle, the following letter and affidavit are given:

WILLIAM CARSON, PRESIDENT.
J. K. DOLLISON, VICE PRESIDENT.



C. P. SOULE, CASHIER
L. T. KINSLEY, ASST. CASHIER

THE BANK OF EUREKA

DIRECTORS
ALEX. CONNICK
WILLIAM CARSON
JOSEPH PORTER
ALLEN A. CURTIS
J. K. DOLLISON
A. BERGING
C. P. SOULE

CAPITAL SUBSCRIBED \$200,000 = CAPITAL PAID IN \$100,000

Eureka, Cal., Sept. 16th

MS 2

William H. Pratt, U. S. Surveyor General, P. O. Box 2260: General U. S. Grant was taken from old Fort Humboldt, which was located, and every part of that edifice has a peculiar interest to an American.

This shingle was laid in 1852, and after forty years' exposure to the weather is still sound and useful for many years to come.

This interesting relic well illustrates the indestructibility of the wonderful California redwood (or more properly "California cedar"), which in time will become known and appreciated throughout the country. Yours truly,

ALEX. CONNICK (Signed)
(Director in Bank of Eureka.)

DEPARTMENT OF THE INTERIOR,
OFFICE OF U. S. SURVEYOR GENERAL
For the District of CALIFORNIA,
SAN FRANCISCO, CAL.

William H. Pratt, United States surveyor general for California, first being duly sworn, deposes and says: That he has been shown this redwood shingle, that is represented to him by a perfectly reliable and trustworthy friend who says that he took this identical shingle recently from the old Fort Humboldt, Humboldt county, California, in or about the year 1852, of the old government buildings built at Fort Humboldt, and that the buildings at this post were shingled by redwood shingles in the service of the United States in 1863 and that from a residence in said county he has stationed at said Fort Humboldt for a period of twenty-six years, and to the one now shown him, and all of this time, he has no doubt that this shingle is one of the original shingles in good state of preservation during the length of time that redwood shingles would last, but it surely would cover a great many years.

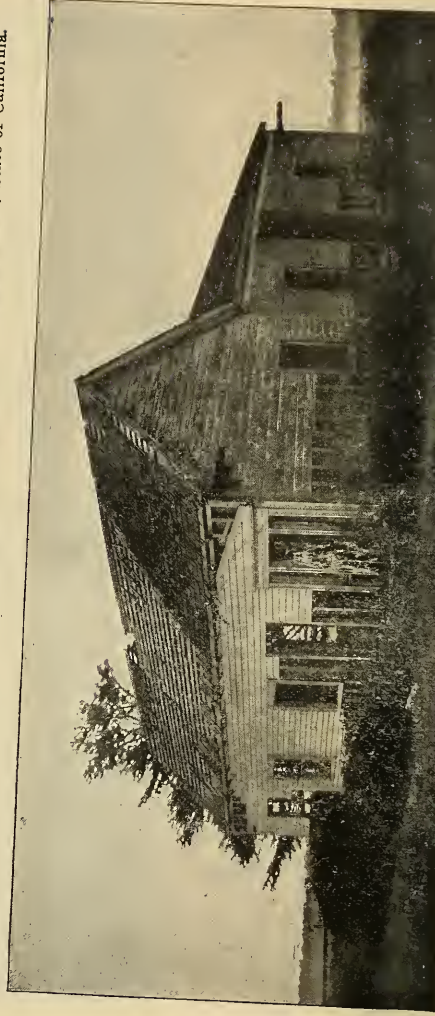
Affiant further says that from his experience and observation it would be a very difficult matter to determine the length of time that redwood shingles would last, but it surely would cover a great many years.

[SEAL.]

Notary Public in and for the city and County of San Francisco, 1892.

WM. H. PRATT.

CHAS. T. STANLEY.
Notary Public, State of California.

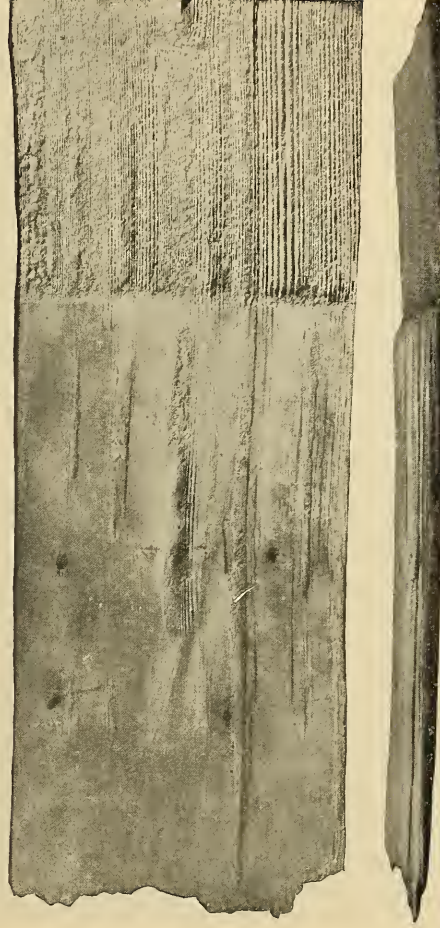


ONE OF TWO REMAINING BUILDINGS AT FORT HUMBOLDT, CAL., BUILT IN 1852-3.

The history of the manufacture of lumber in Humboldt, the stages of progress made from the first saw log to the present time, is a most interesting page in the record of the progress and development of Humboldt county, but the general merits, the adaptability of this timber to supply the demands of commerce and of structural work, at once involve the question of the area covered—the entire belt—as an available source of supply. This can be estimated only approximately, for two reasons: The redwood, even where it is the sole occupant of the land, varies exceedingly in density; and, second, in many places it is intermingled with white fir, spruce and pine, in quantity sufficient to constitute nearly or quite one-quarter of the area and total stand in feet; that is to say, of the estimated acreage of original standing timber in Humboldt county 125,000 acres may be accepted as timber other than redwood. The same illustration will apply to the whole belt. Humboldt and Del Norte contain that portion of the belt which is held to be the best stand, clearest timber. To gain a tangible idea of this forest as a source of supply the following table is given, which shows approximately and as nearly as the problem can be arrived at the original area of belt, the amount timbered off, the amount remaining, and total amount of redwood now existing and available, giving averages for each county:

	Original area, Acres.	Timbered Acres.
Del Norte county	140,000	10,000
Humboldt county	500,000	95,000
Mendocino county	640,000	225,000
Sonoma county (lump estimate) .....	.....	.....
Total	1,280,000	330,000

	Present Area, Acres.	Average per acre.	Total present stand in feet B. M.
Del Norte county	130,000	65,000	8,350,000,000
Humboldt county	405,000	65,000	26,325,000,000
Mendocino county	415,000	45,000	18,675,000,000
Sonoma county .....	.....	.....	1,000,000,000
Total	950,000	.....	54,450,000,000



REDWOOD SHINGLE AFTER CONTINUOUS USE OF OVER HALF A CENTURY.

The averages per acre for Del Norte and Humboldt are extremely conservative, considering the stand and character of the timber, and it is as a fact that lands already worked have cut a much larger average, reaching 75,000 to 100,000 feet per acre as actual results, but it is also a fact that lands that have been timbered off

are far more than average timber land, and allowance must be made accordingly. Astonishing as it may seem to those who have never seen a redwood forest, there are many acres of redwood densely covered with colossal specimens of this timber that will yield 1,000,000 feet of merchantable lumber to the acre. Such an amount has actually been cut from a single acre, and after this there can be gathered many cords of shingle bolts, posts and other small stuff.

The avenues by which these timber reserves may become available to the growing demand are by water transportation, shipping from the various coast shipping points; and by railroads traversing the timber belt and connecting with the systems of the state and transcontinental lines.

In the past and at present the former is almost the only means of sending redwood to the world. A very small amount of redwood lumber finds its way out over the California Northwestern, reaching tide water at Tiburon on San Francisco bay; as a means to move any considerable amount of redwood to the markets the railroad is yet a matter for the future to realize.

While there are numerous fair weather points from which redwood shipments are made by water, by means of chutes, yet Humboldt bay is the only safe, land-locked harbor capable of accommodating the fleet that is engaged in this trade, both domestic and foreign.

The shipments through this channel for the past year from Humboldt were 138,802,963 feet of sawed lumber, 623,788,000 shingles, 17,023,000 shakes, and sufficient of miscellaneous timber products to make up a total of 225,931,487 feet board measure. Besides domestic ports these products reached the Hawaiian and Phil-

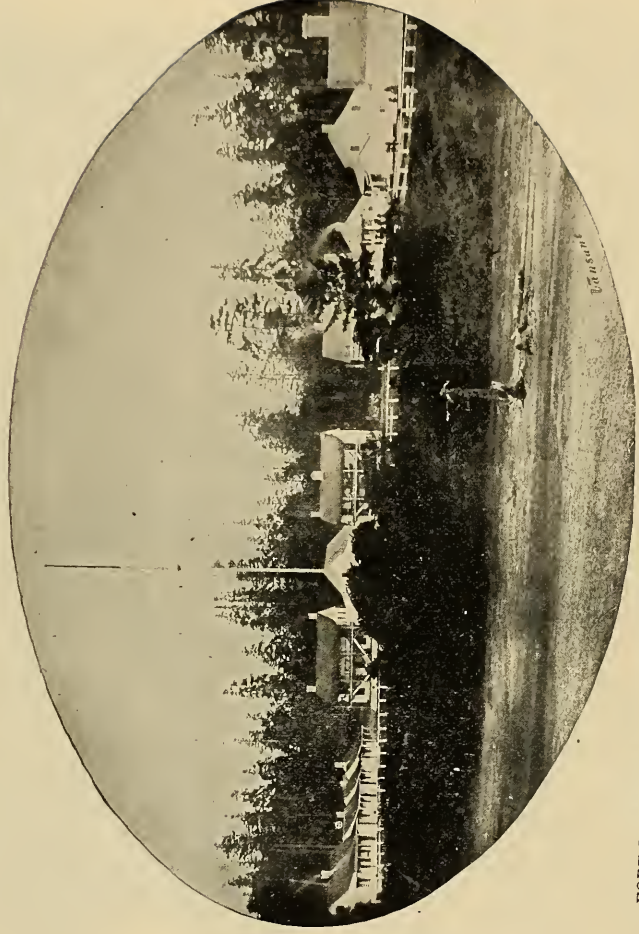
tipine islands, Australia, England, Ireland, Scotland and Mexico. The total export of forest products from this county alone amounted to \$3,706,768. To accommodate this traffic that goes from Humboldt by water there is an average of sixty departures a month of ocean and coasting craft.

The expenditure by the government in improving and deepening the entrance to the harbor has had the effect of securing 26 to 28 feet of water at ebb tide. In this work the government expended about \$2,000,000, resulting in making safe water for large ocean craft, which are now seeking cargoes at Eureka's wharves, and the bulk of foreign orders goes direct from this port to destination.

It has been given out in a number of instances that

forms a subject well worthy the careful consideration of lumbermen and all who are interested in the future lumber supply. According to present appearances and the readiness and prolific manner in which redwood germinates and reproduces, so long as present climatic conditions obtain there is no reason why the redwood forest should not continue to exist and yield lumber for thousands of years. The unthinking attitude of the present day lumberman is that he cannot wait for redwood to grow and therefore his vain and only idea is to rob the forest of what redwood there is now, by the cheapest means, utterly regardless of the fact that his methods are wantonly wasting the future supply for coming generations.

Eureka is noted as a point of shipment for other than



FORT HUMBOLDT, CAL. AS IT APPEARED IN 1853-4. (GENERAL GRANT'S HEADQUARTERS INDICATED AT THE LEFT.)

there is no reproduction of redwood, no germination from the seed, no seed etc. This is a most egregious mistake, and it is difficult to understand how it could have been made by any one who has had an actual experience in the redwood forests. The fact is that redwood reproduces from the seed and by shoots from the stump. In thousands of places the redwood germinates and springs up in groves so dense that it is an exceedingly difficult matter for a man to force his way among the young trees, and in some cases he could not do so were he not able to push aside the slender and pliable saplings. As these dense groves grow the law of the survival of the fittest obtains, and the weaker and smaller trees die out, giving more room to the stronger growth, even to the age of 25 and 50 years.

The custom of burning off the logging ground destroys untold wealth in young redwood growth and

forest products, the amount and value of which are shown in the following table of summaries:

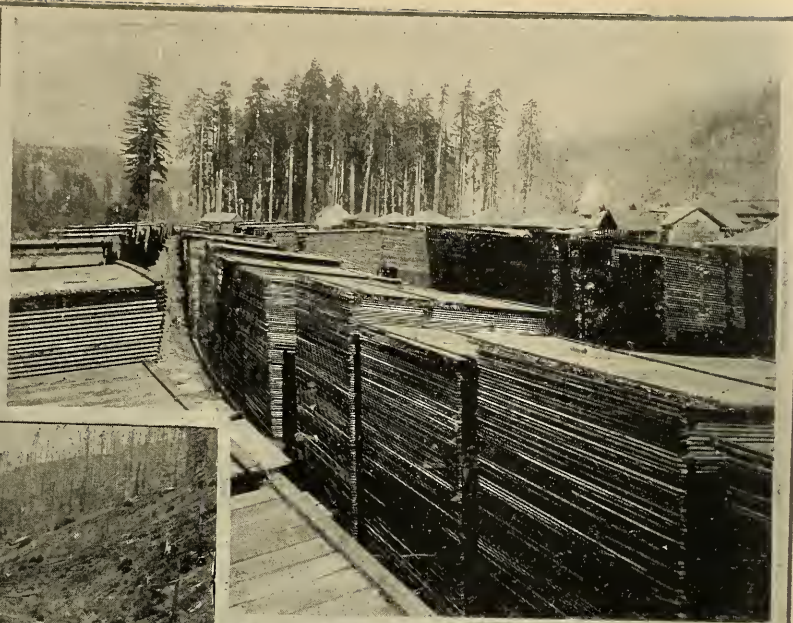
Products.	
Animal	Pounds.
Dairy	5,814,100
Wool	1,285,720
Arm and ranch	5,614,692
Overland	3,786,005
Fish and game	3,513,350
Miscellaneous	2,360,500
Lumber, etc.	3,706,768

The total value of all products and manufactured goods for 1902 was \$6,250,359, a gain of \$989,573 over the 1901 record. The total value of all imports for 1902 was \$3,427,176, showing an excess in the value of the manufactured and natural products over the imports of \$2,823,183.

The LUMBERMAN is indebted to C. P. Soule, president of the Bank of Eureka, for much of the data used in compiling the above and it was through his instrumentality and suggestion that it was prepared.



MILL AND LOG POND OF THE NORTHERN REDWOOD COMPANY AT KORBEL



MILLIONS OF FEET OF LUMBER



The Log Pond

SCENES AT THE PACIFIC LUMBER CO.'S PLANT, SCOTIA
The Mill and Yards

Interior Views of the Mill

SHINGLES



THE subsidiary branches of the lumber manufacturing interests of our country, by far the most important is the manufacture of shingles. In fact, it is to a great extent a separate industry; as more than three-fourths of the output of shingles in the County is made in plants apart from the saw-mills whose product is lumber. And this line of separation will doubtless increase as time goes on, for the reason that the main market for shingles will be to a larger extent the territory east of the Rocky Mountains. Whereas, until some more comprehensive method of drying is put into operation, the markets for lumber will continue to be the Pacific Coast, the Sandwich Islands, and Australia.

Redwood is an ideal timber for the making of shingles; its well known weather resistance, its freedom from warping and rotting, its straight grain and large size which make it easy to be sawn vertically, its lack of combustible quality, absence of pitch, etc., being the considerations that make it the equal, if not the superior, of any known wood for this purpose. And were it not for the isolation of the redwood region from the shingle marts of our whole country, and the consequent difficulty and expense of transportation, the redwood shingle would be the standard for quality and price throughout the East, as it is in California and the West.

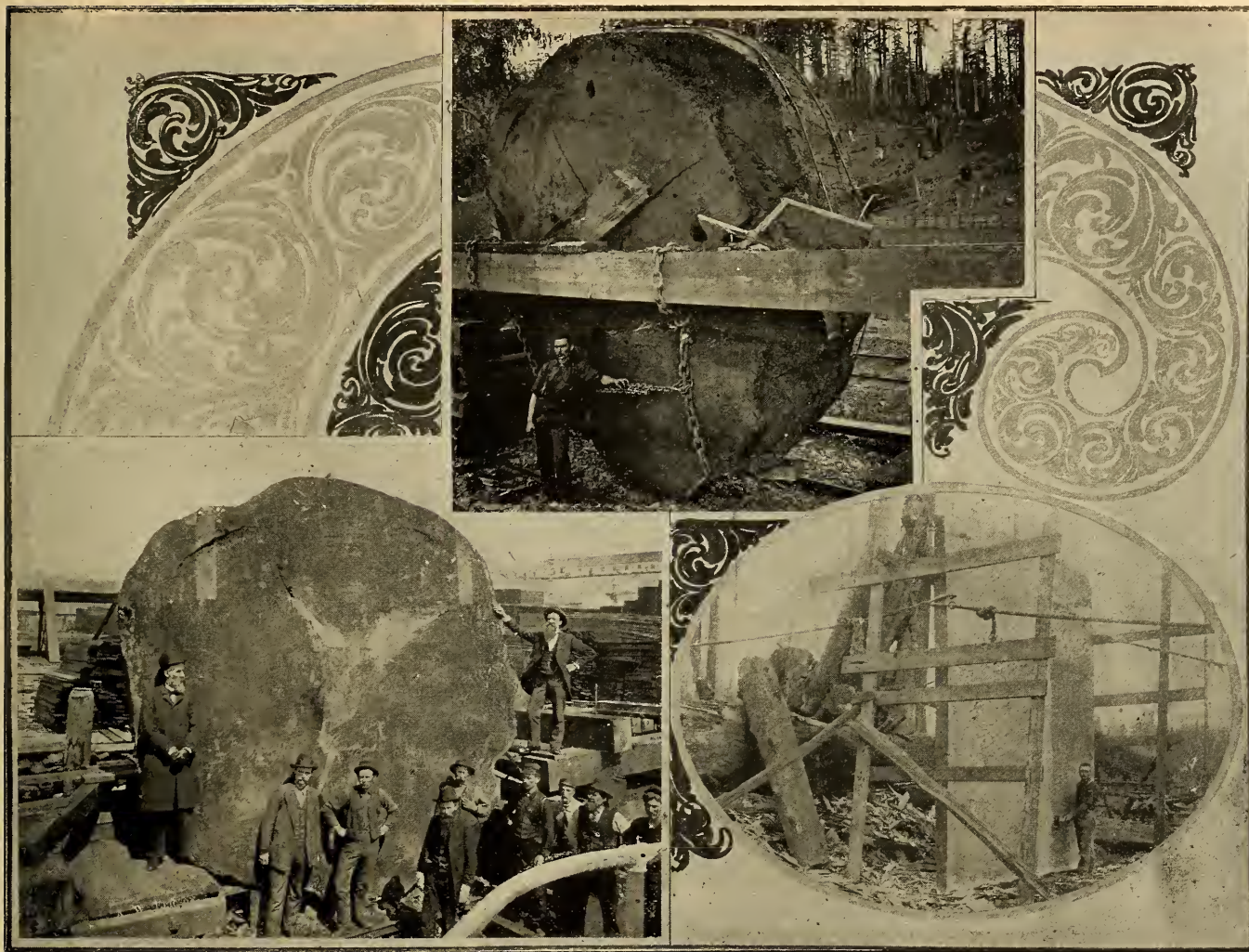
THE TRANSPORTATION PROBLEM.

The transportation problem is and has always been a most serious one in this industry; for while a large percentage of redwood timber is as light as cedar when thoroughly dried much of it is extremely heavy when green; and a considerable proportion of this heavy timber often proves rather refractory in the dry-kiln. So that the dry-kilning of the entire cut of a shingle plant, which is an all-the-year-round occurrence in Washington red cedar mills, is an almost unheard-of proceeding in Humboldt, although now somewhat nearly approximated by several mills here. As they come from the saw,

redwood shingles will weigh from 200 to 350 pounds per thousand; they cannot be shipped east profitably at a weight in excess of 170 to 180 pounds per thousand; to get rid of the surplus weight cheaply and expeditiously, but without injury to the timber, is a problem that is not yet fully worked out in Humboldt.

Probably the finest and best purely shingle plant in the county is that of W. G. Press at Bucksport. No money was spared in making it perfect and complete and it is one of the show places in this line of industry. Mr. Press appears to have solved the problem of drying the shingles in kilns. All his output goes to the East, and all is dried before being shipped.

Some successes have been made with the dry-kiln; some failures have been noted as well. The method adopted by the Shingle Manufacturers' Association of Humboldt County, *i. e.*, of shipping the green shingles to Central and Southern California and there piling them to dry in Nature's great dry-kiln—the warm, dry air of that sunny region—has in some respects filled the requirements, enabling the mills to run continuously by taking the surplus product to the Association's great drying yards at Corona, near Riverside in Southern California and Los Medanos on the Sacramento river. In this regard and in the quality of the shingles when so dried, the plan of the Association is eminently satisfactory; it being admitted by all that an air-dried shingle is in all respects a better article than one that is kiln-dried, no matter how much care may be taken in the latter operation. But the expense of shipping, the excessive amount of handling necessary to get the shingles there, and the length of time before returns are received from sales, are serious handicaps to this method of operating; and with the advent of the first continental railway into Humboldt there will ensue a rush of the shingle manufacturers into kiln-drying and direct Eastern shipments. When that time comes, the manufacturers in Humboldt will be receiving a fairly remunerative price



A Section of a Redwood Tree Cut in the Vance Company's Woods.

A Solid Slab of Redwood Cut at Elk River and Exhibited at the World's Fair, 1893

for their product, through the cutting off of the various items of expense incident to the excessive handling now essential to placing their shingles in the Eastern market, and their product will also reach that market in much better condition when the process is, from dry-kiln to car, and by car to the yard of the purchaser; instead of, from mill to wharf, from wharf to vessel, by vessel to sea-port, from vessel to rail-car, by car to drying yards, from yard pile to car, by car to final destination in the East.

A little of the early history of this industry, not too extended, may not be out of place here. In the beginning, as in all newly settled localities, the only shingles known were those made by hand, rived and shaved, and practically for local use only, although some small shipments are said to have been made to San Francisco. And here it may be said, that when properly made, the old fashioned shaved shingle was in wearing qualities superior to the sawed article of today: the greater smoothness of surface consequent upon the shaving process acting to reduce the friction and consequently the wear and tear of the elements.

About 1867, what was probably the first shingle-sawing plant in the County was erected by George M. Fay & Bro. at Fairhaven. This mill contained two upright machines of an eastern pattern, and sawed some twelve millions of shingles per annum. Later this plant was enlarged by the addition of a second mill, and in 1873 its output was about thirty millions. Up to about 1875, this plant produced practically all the sawed shingles manufactured in Humboldt, and had a virtual monopoly of the coast market, which at that time meant San Francisco only. In 1874-5, the Challoner machines were introduced here—the hand machine in the saw-mills to cut up the best of the waste material, and the “double-blocker” in the bolt shingle mills. A number of these machines were put into operation at that time or shortly after, and the shingle output of the country was rapidly increased. As before, the principal market was San Francisco, but Southern California was also beginning to figure as a market.

In 1877 and the year or two following, hard times and over-production caused a depression in this growing industry, with the result that the production was much decreased, some of the mills closing down for a considerable time, and others

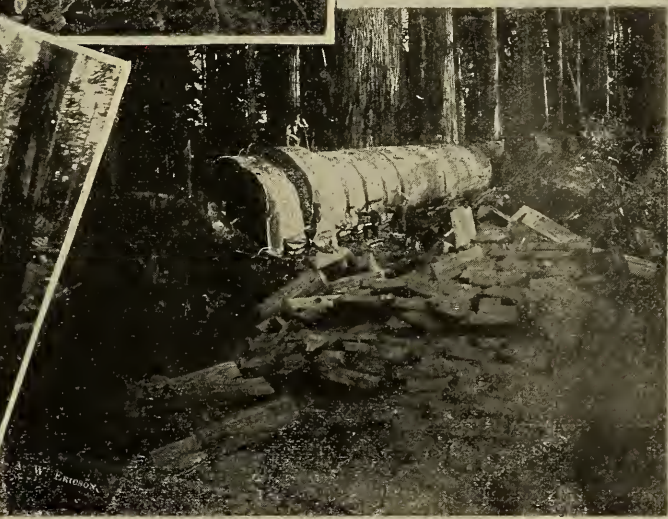
going out of business altogether. But in the latter part of 1879, and the early '80's, the revival came; the Southern California boom was on, and the demand for shingles was seemingly unlimited. Mills began to spring up in all parts of the county, and the output of shingles soon reached nearly 300 millions annually.

An important factor in this increase was the “Hanson Upright Shingle Machine,” devised and patented by Ole C. Hanson—at that time working in the shingle mill on Indian Island, opposite the Eureka water front, owned in turn by A. Howatt and E. Cousins. When fully perfected, this machine was found to be more satisfactory in sawing redwood into shingles than any other that has been tried here; and it has now entirely displaced all other makes of machines in mills making shingles from bolts.

In the early '80's, an extremely favorable rate on shingles from San Francisco to the Mississippi and the East was put into effect, and as a result five or six of the principal shingle manufacturers erected dry kilns, and began to dry shingles for shipment to the Eastern market. This business continued quite important for some time; but a change of policy on the part of the railroads, resulting in the increase of their rate, and the difficulties met with in procuring vessels to freight the shingles to San Francisco, served to make this trade so much less profitable, that most of the mills engaged in it gave it up, and turned their attention to the coast market for green shingles. In fact, but one mill remained steadily in the business of drying shingles for the eastern trade.

The hard times of 1892 and 1893 coming on, it was found that the capacity of the mills in operation was in excess of the demand, and under the competitive system the price of shingles in the coast market dropped to little if any above the cost of production. Two or three of the mills had for some time been making occasional shipments to Southern California to air-dry for eastern sale, but the results had not been entirely satisfactory, principally through lack of unity among the manufacturers, and this method had been given up.

The condition of the market showing no improvement, early in 1896 three of the principal manufacturers called a meeting of all the shingle-mill owners, to devise ways and



Bolts on the Way to the Mill

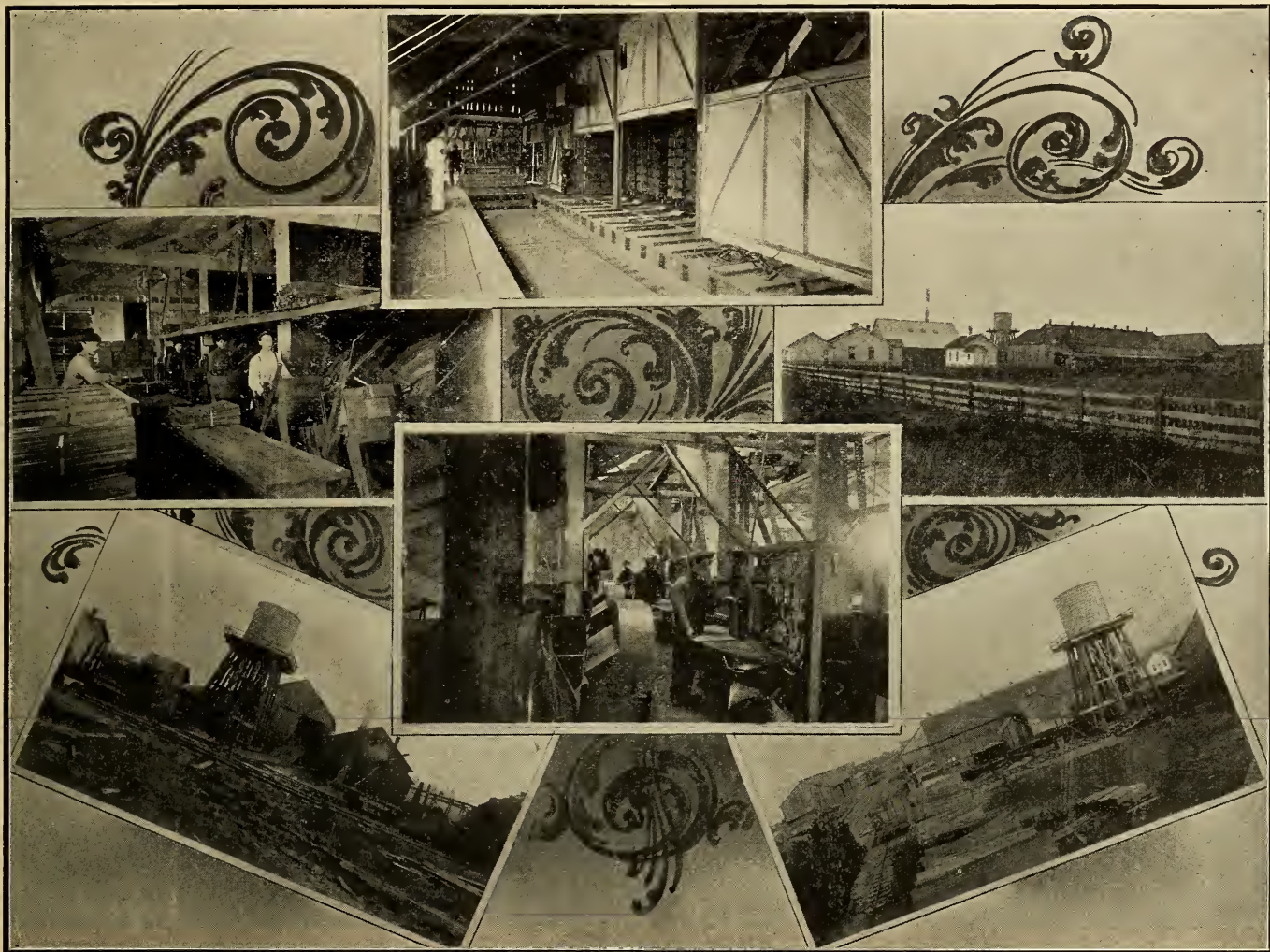
Cutting Up Logs for Shingle Bolts



The Living Room

RESIDENCE OF W. G. PRESS, EUREKA

Exterior View



SCENES AT THE SHINGLE PLANT OF W. G. PRESS, BUCKSPORT

The Packing Room

The Dry Kilns

The Shingle Machines

Exterior Views of the Plant

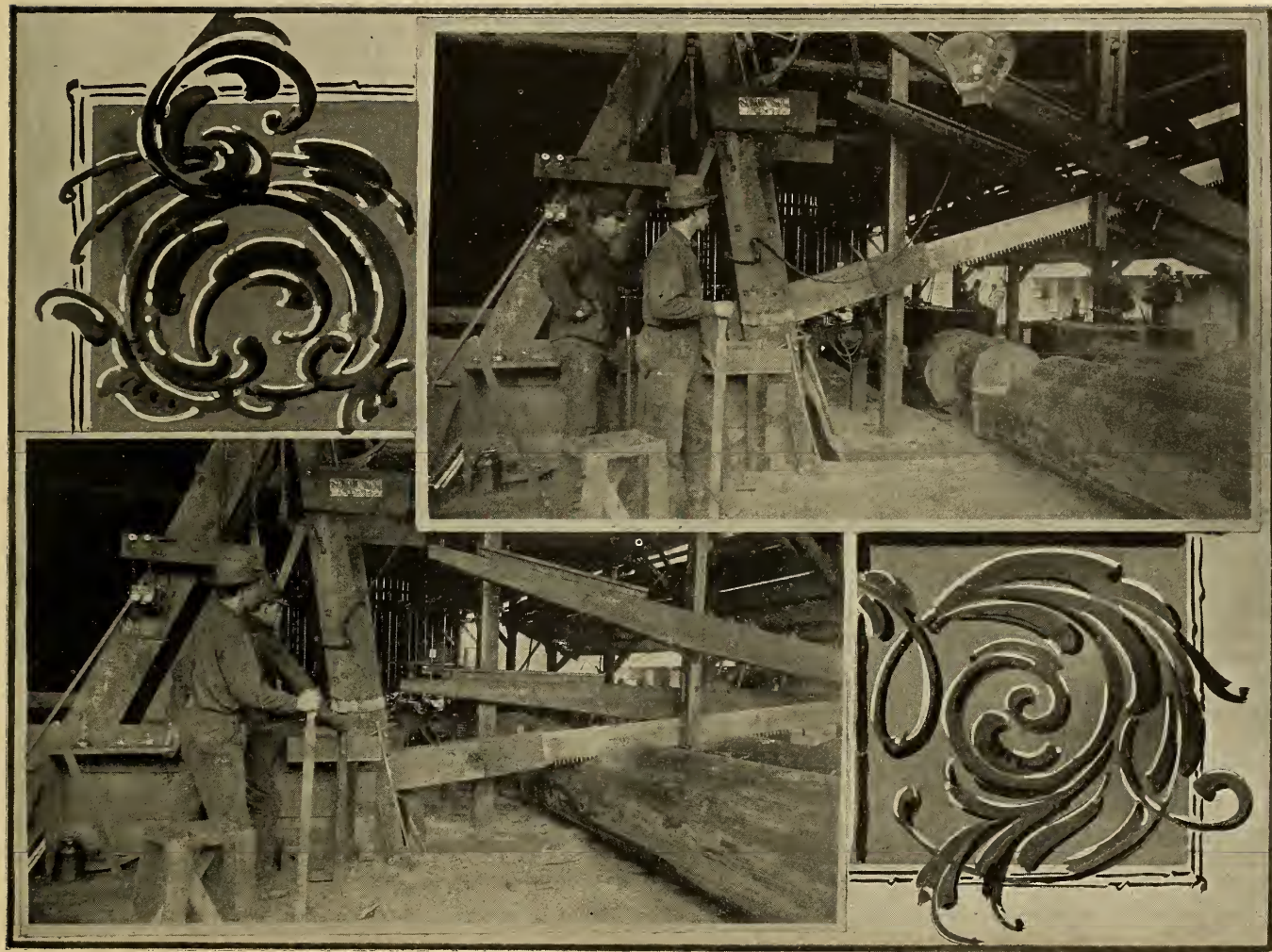
means of bettering the discouraging situation, if possible. This meeting was followed by others throughout the summer of 1896, and finally, on October 12, 1896, the Shingle Manufacturers' Association of Humboldt County was incorporated, with thirteen of the principal mill-owners as stockholders. Some minor difficulties arising in putting the Association's methods to a trial, it did not begin operation until October 7, 1897. At that time it had fifteen subscribers, owning twenty-nine Hanson machines, eight hand machines, and thirteen shake machines. There were three operative mills not joining. From the beginning, the Association's operations met with a considerable degree of success. It has steadied coast prices, and furnished an opportunity to dispose of the surplus cut in the eastern market, thus enabling the mills to run the year around. And its membership has grown until now it has twenty-seven Humboldt members, representing fifty-six Hanson machines, nine hand machines, and thirteen shake machines; with two members in Mendocino County, owning one "double block" and two Hanson machines, and one shake machine. The plan on which the Association is operated is quite simple. It is, to set a price for all coast sales; to ship the surplus output to the yards to air-dry for eastern sale; and finally, at stated times, to equalize the returns to all its members on all shipments. The Association as constituted, has not been able to overcome all of the drawbacks that the isolated commercial position of Humboldt imposes on its shingle manufacturers; but it has remedied many of them and mitigated others; and it has thoroughly demonstrated that unity of action may enforce success where individual effort would meet with failure.

The majority of the shingle mills operated apart from the lumber mills, use green timber direct from the virgin forest. Those connected with saw-mills use some virgin timber, but most of their bolts are made on lands already logged for lumber purposes. The hand machines in the sawmills use the waste from the mills—ends of timbers, planks, etc.,—and their output is known as "mill shingles" in contradistinction to the "bolt shingles" made by the shingle mills proper. When working in green timber the process is—first, to fell the timber and peel off the bark with the narrow strip of sap after the bolts are split—then saw the logs into

lengths of a little over four feet, and split these lengths into bolts. The size of a "bolt" is limited by the capacity of the Hanson machine to receive them; and this limit is fourteen inches one way by a varying size the other, dependent principally upon the weight of the timber from which the bolt is made. As the shingles have to be sawed across the grain, or "vertical grain," as it is called, the bolt maker has to exercise good judgment in getting out the bolts so as to be sawn to the best advantage. A cord of bolts usually comprises from twenty-eight to thirty-four separate bolts.

If the mill is built in or near the timber, the bolts are then hauled by horses on a sled to the mill. On the other hand, if the mill is located at a shipping point some distance from the timber, the bolts are sledded to a wagon road or logging railway, and thence conveyed to the mill. Arrived at the mill, the bolts are taken in hand by the bolt-cutter, who, by means of a cut-off saw, first trims one end true, and then cuts the bolt into three blocks, each sixteen inches in length, and places these blocks on a table near the shingle machine. The blocks are then placed by the sawyer, one at a time, in the shingle machine, which, working automatically, saws them into shingles of varying width according to the size of the blocks. Meanwhile the sawyer is busily engaged in taking the shingles from the saw, three or four at a time, and smoothing their edges by holding them against the jointer, which is a revolving wheel or cylinder, armed with eight blades similar to planer-knives. The sawyer then tosses the completed shingles into an inclined chute, whence gravity conveys them to the packer; whose duty it is to place them in the "packing horse," and form them into the symmetrical "bundles" of commerce; fastening them with sheet steel "bands," nailing the ends of the bands to the "binders," which are two strips of wood about $1 \times 1\frac{1}{2} \times 20$ inches, one across each side of the center of the bundle. The bundle of shingles is then completed, and ready for the market or the dry-kiln.

The Hanson shingle machine is capable of sawing from forty to sixty thousand shingles per working day of ten hours; the cut varying with the quality of the bolts and the skill of the sawyer. As high as 117,000 are claimed to have been cut on this machine. But an average day's cut is about $47\frac{1}{2}$ thousand, which would be 300 thousand per week, 1200 thousand



USING THE DRAG SAW TO MAKE BOLTS

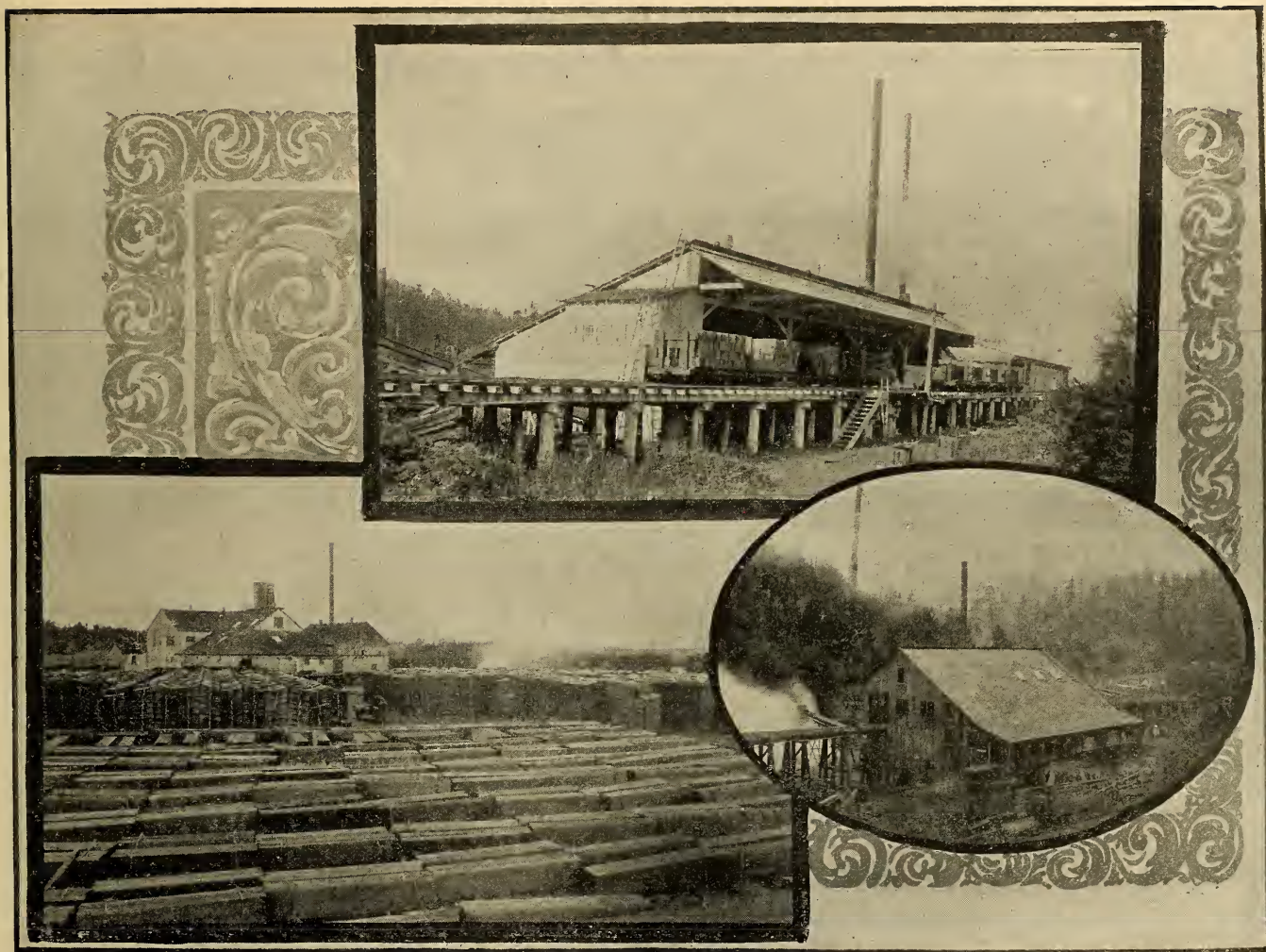


Where the Shingles are Packed.

IN A SHINGLE MILL

A Shingle Sawyer at Work

Interior of a Mill



SOME SHINGLE MILLS

per month, or fourteen million per year, if operated continuously. Some quarter sections of redwood in Humboldt carry fifteen million feet or more of marketable timber; computing that the timber required for a thousand feet of lumber will produce ten thousand shingles; such a tract would furnish material for 150,000,000 shingles; enough to keep one Hanson machine in operation steadily for upwards of ten years. While the average timber claim will not come near the figures above given, few good claims will fall below eight million feet of timber; and it will thus be seen that the number of acres of redwood timber land necessary to justify the erection of a shingle mill need not be very extensive.

At the present time a cord of shingle bolts delivered at a mill of average accessibility is worth from \$4.50 to \$5.50, including the stumpage of the timber. Generally, stumpage is worth seventy-five cents per cord. A cord of bolts is expected to produce from eight to ten thousand shingles, according to the quality of the timber.

The shingle mills of Humboldt range in size from plants of one machine up to five. Mills with two or three machines, the latter especially, are the most economical, as several of the hands required in a one-saw plant can fulfill all the duties of their position in a two or three-saw plant. The number of hands required in a one, two or three-saw plant, and their daily output, is usually about as follows:

Employees.	One Machine.	Two Machines	Three Machines
Filers	1	1	1
Sawyers	1	2	3
Bolt Cutters	1	1	1
Block Setters		1	1
Packers	1	2	3
Engineer and Firemen	1	1	1
Night Watchman	1	1	1
Extra man		1	1
Total	6	10	12
Daily output	47,500	95,000	142,500

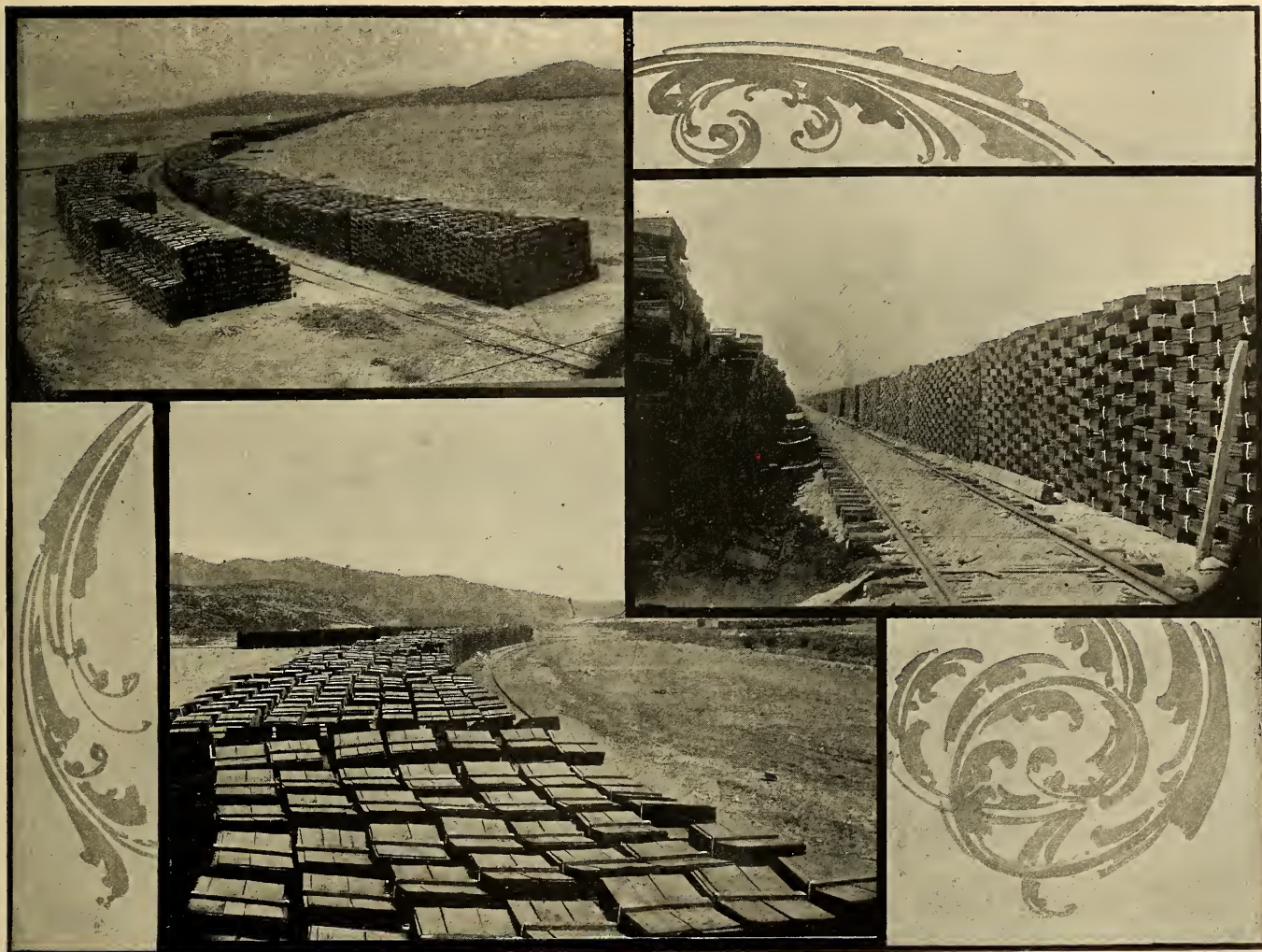
From this table it will be seen that the daily output per man in a one-saw plant is about 8,000; two-saw plant, 9,500;

three-saw plant, 12,000. But above three machines this progression does not hold good, as the filers, bolt-cutter, etc., could not do the work for more than three machines. Not all packers can pack the entire cut of one machine; so that there is often additional help in the packing department.

Under average circumstances as to situation, to produce and deliver the bolts required for a two-saw plant—which may be taken as the average of Humboldt mills—requires the labor of about fifteen men. The cook-house at the mill requires one cook and one helper. So that, all told, from twenty-seven to thirty people are almost continuously engaged in producing the output of an average two-plant. Should a dry-kiln be operated in connection therewith, one, two, or three additional men will be required, according to the capacity of the kiln, or other circumstances.

Along with the manufacture of shingles is also carried on the making of shakes. A shake, in general terms, is $\frac{1}{4} \times 6 \times 36$ inches in size, although many other sizes are made. Split shakes are also an item of considerable importance in the trade. In the early '80's, machines for sawing shakes were introduced, and these have been perfected until each machine, working automatically, is capable of sawing from 12,000 to 20,000 shakes per day. Most of the larger shingle mills include a shake machine in their plant, which is operated more or less continuously according to conditions. The annual shipment of shakes is now from 15 to 20 millions.

The operations of bolt-making, etc., for shakes is similar to that for shingles, except that the bolts are three feet instead of four feet long; and they must be made from the best of timber only, so as to split as closely as possible to six inches in thickness without wasting too much timber in sawing them down to that size on the "pony" saw in the mill. Aside from this "ponying" process, their manufacture in the mill is but little different from that of shingles, except that each shake receives from two to ten small grooves on one side throughout its entire length, which grooves are intended as waterways to prevent water from following the circular marks left by the saw teeth on the surface of the shake. In a split shake, the grain of the wood furnishes natural grooves for this purpose; and in shakes sawed by a machine furnished with a band saw instead of a circular saw, no grooves are necessary,



HUMOLDT SHINGLES STACKED FOR DRYING AT THE YARDS IN CORONA, SOUTHERN CALIFORNIA



VIEWS OF THE RIVERSIDE MILL OF THE NORTHERN REDWOOD COMPANY



The Town of Korbel

View of the Korbel Mill of the Northern Redwood Company

as the bolts are sawed longitudinally, and the marks left by the saw are parallel with the grain. In the ordinary shake machine the grooves are cut by small saws set on a shaft at right angles to the saw which cuts the shakes, and the number of grooves is determined by the number of these small saws. Shakes are put up in bundles of twenty-five shakes each, tied at each end with rope-yarn.

GRADE AND QUALITY.

It may be said without fear of dispute that in no other place on earth that manufactures shingles for the trade is the percentage of first grade product so large as in Humboldt. Redwood as a whole is so largely clear that there is no occasion for the use of knotty or defective timber in shingle making, consequently the resulting product is practically all first quality. But two grades of shingles are made in Humboldt; known as No. 1 and No. 2. The No. 1 shingle is to be all clear and of sound, live timber, sawed vertical grain, without "shims" or other defects in manufacture. All shingles that will not reach this standard are No. 2. Shingle mills running solely on bolts made from green timber average not more than three per cent of No. 2. Hand machines in saw mills, which use the waste from these mills, make more No. 2 proportionally, mainly because much of the material which they use is in such form that it must be sawed slash, or "bastard grain." Yet the combined output of all the mills in the county is above ninety-five per cent of No. 1. In proof of the correctness of this percentage, the total shipment of the Shingle Manufacturers' Association for the year 1903, was 565,649,000, of which but 25,721,750 were No. 2, or a little less than four and one-half per cent of the total.

To the eastern market the Association ships only the No. 1 quality; individual shippers of kiln-dried shingles ship some No. 2 because there is a strong demand for a cheaper grade than No. 1, but even here the percentage of No. 2 shipped is small. In contrast with this, it should be remembered that the bulk of the shipments of the Washington red cedar manufacturers is made up of a grade known as "Star A Star"; the specifications for which only call for a shingle eighty-five per cent clear, and which admits sound knots and defects in

the timber, providing that the same shall not be found within eight inches of the butt or weather end of the shingle.

Some peculiarities of nomenclature and methods of packing which prevail here, are of sufficient interest to deserve mention in this article. For instance, in Humboldt the ordinary random-width shingle is called a "Common" shingle; in most other shingle-producing sections of the country, it is, with more reason, known as a "Random" shingle. In Humboldt the term "Fancy Shingles" includes not only shingles with worked or fancy butts, but also all "square" shingles made to even widths, as five-inch or six-inch shingles with plain butts. Elsewhere "Fancy Shingles" means only shingles with fancy butts; "square" shingles, *i. e.* shingles of even widths, being known as "dimension shingles" or "squares."

As noted above, in Humboldt there are but two grades of shingles—No. 1, which means fully clear and of perfect manufacture; and No. 2, which includes all else that can be called a shingle. In other shingle marts the number of grades is much more extended, and the term "No. 1," if used at all, does not imply a strictly first-class article. Instead, the first class shingle is known by a variety of specific appellations, such as "Bests," "Clears," "Perfections," "Eurekas," etc., according to the custom of the location where the shingle is made, the kind of timber used, and the gauge of thickness to which it is sawed. It is claimed by some that the use by Humboldt manufacturers of the term "No. 1" to designate the first-class product in redwood, when that term is applied in other woods to a shingle not strictly first-class, must operate to the detriment of the redwood shingle in competitive markets. This is doubtless true to some extent; but if the present marking be strictly adhered to, it will no doubt finally enforce a recognition of the manner of its application to redwood products.

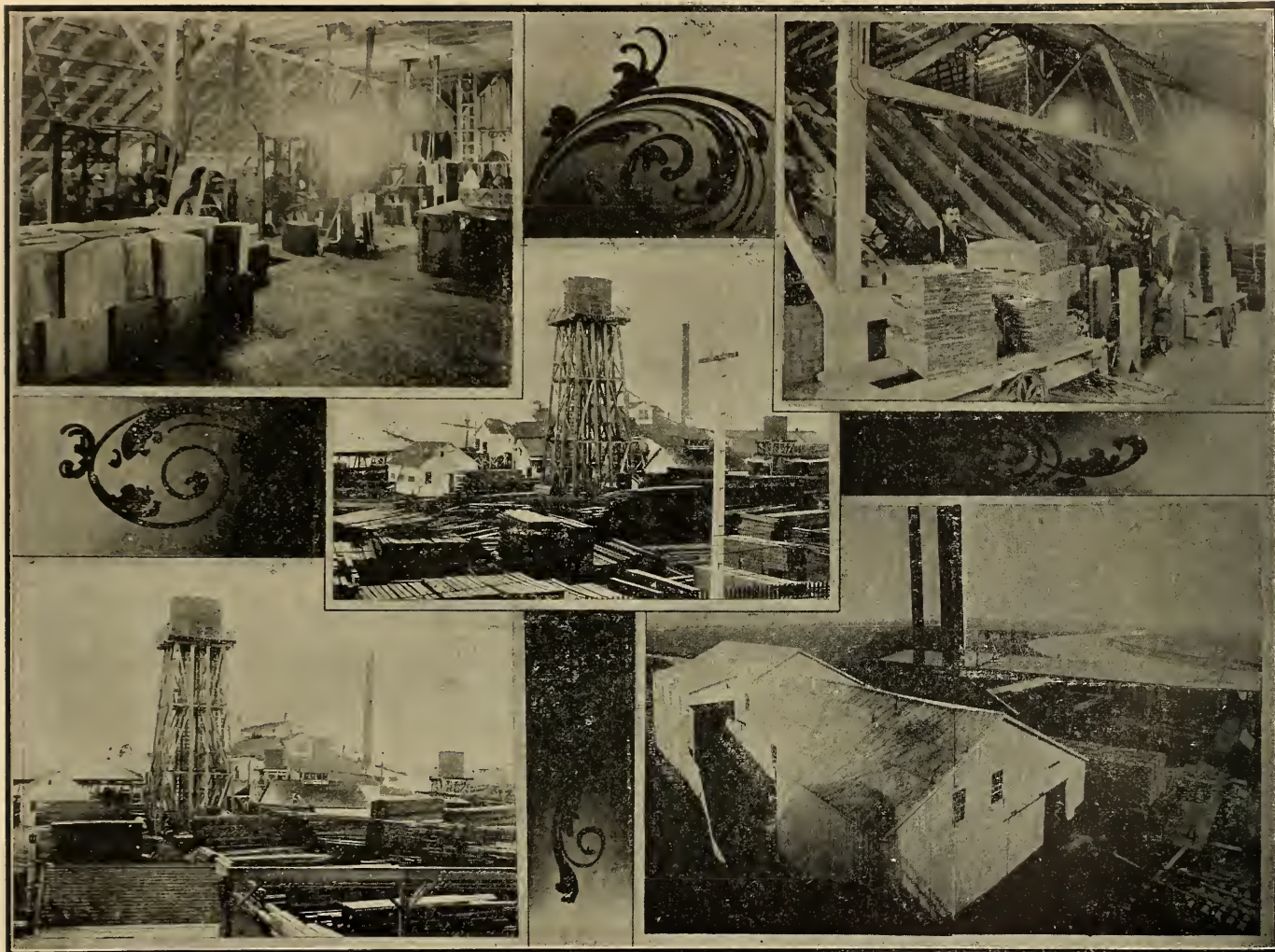
The standard gauge of thickness in redwood shingles is 5 to 1¾; that is, the butts of five shingles when placed together must measure 1¾ inches. A gauge of 5 to 2 inches is also sawed for certain sections of the eastern market, and special orders are sometimes sawed on other gauges. In Washington red cedar, the gauges are 5 to 2 and 6 to 2; the latter being the standard of the bulk of the shingles produced. So that



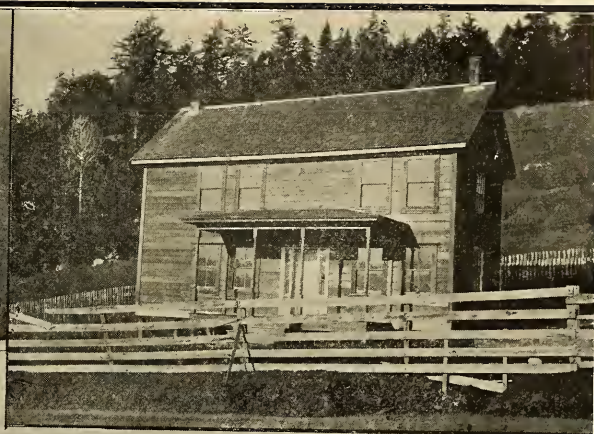
Store of Frank W. Beckwith, Hydesville

Shingle Mill of George W. Williams

Shingle Mill of Frank W. Beckwith, on the Van Duzen



EXTERIOR AND INTERIOR VIEWS OF THE OCCIDENTAL COMPANY'S SHINGLE PLANT, RYAN'S SLOUGH
Two Views of the Occidental Mill, Eureka



Residence of C. H. Reaves, Blue Lake.

Shingle Mill of the Blue Lake Manufacturing Co., Blue Lake, H. Wahl, Manager

Residence of Mrs. Lucy Swanson, near Blue Lake



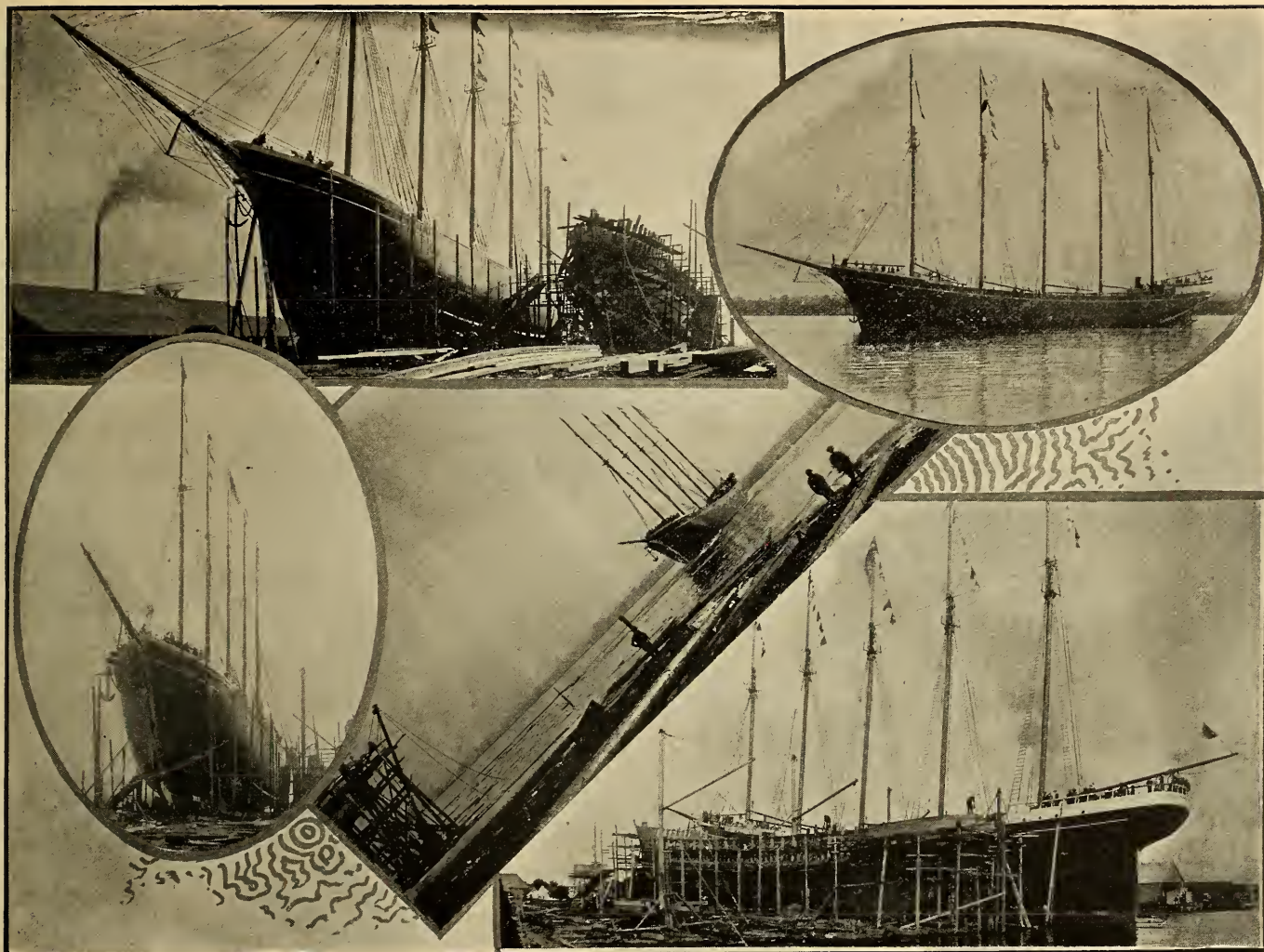
Table Bluff Light House

A Humboldt Built Barkentine

Steamer Pomona

A Yacht in the Bay

The Naval Reserve Out for a Spin



The Five-Masted Schooner Crescent, the Largest Ever Built on the Pacific Coast—Just Before and After the Launching
at the Bendixsen Shipbuilding Yards, Humboldt Bay

the standard redwood shingle is sawed a little thicker than the standard in cedar.

In Humboldt the ordinary packing is 200 to the bundle. Elsewhere they are packed 250 shingles to the bundle. So that outside of California, four bundles constitute a "full thousand" of 1000 shingles, while in this State four bundles make only 800 shingles—a "California thousand." There is some difference of opinion as to how this custom arose; many claiming that it came about through the excessive weight of the redwood shingles when green, which makes a "full" bundle awkward to handle, and renders it more liable to damage in handling. But a prominent shingle manufacturer of Humboldt says that this is not at all the real reason; that the manufacturers of sawed redwood shingles have simply followed the custom adopted by their predecessor, the shaved shingle; and that this method arose from the superior weather resisting qualities of the redwood shingle—its freedom from warping and defects—which permitted it to be laid on the roof five inches to the weather instead of four inches, which is the practice with other woods. Now from time immemorial a thousand shingles have been required to cover a "square" on the roof—a square being 100 square feet. This a "full thousand" will do if laid four inches to the weather. But it was found that the redwood shingle made a perfectly satisfactory roof when laid five inches to the weather; consequently four-fifths of a thousand, or 800 shingles, was sufficient to lay a square. Hence the reduction to the "California thousand" of four bundles of 200 shingles each. However the truth of this matter may be, the fact remains that redwood shingles are usually packed 200 to the bundle, and that four such bundles are accounted a "thousand" in California, and are sold as such in the Coast market. And Humboldt shingles which leave the wharves here in "Cal. M's" of four bundles each, are sold in the Eastern markets in "full M's" of five bundles.

Of all woods in use for the manufacture of shingles commercially none can surpass and few can equal redwood. Among its many advantages may be cited the following:

Its straight grain and soft texture, allowing the shingles to be sawn truly and vertically without difficulty.

The large size of the tree and great percentage of clear

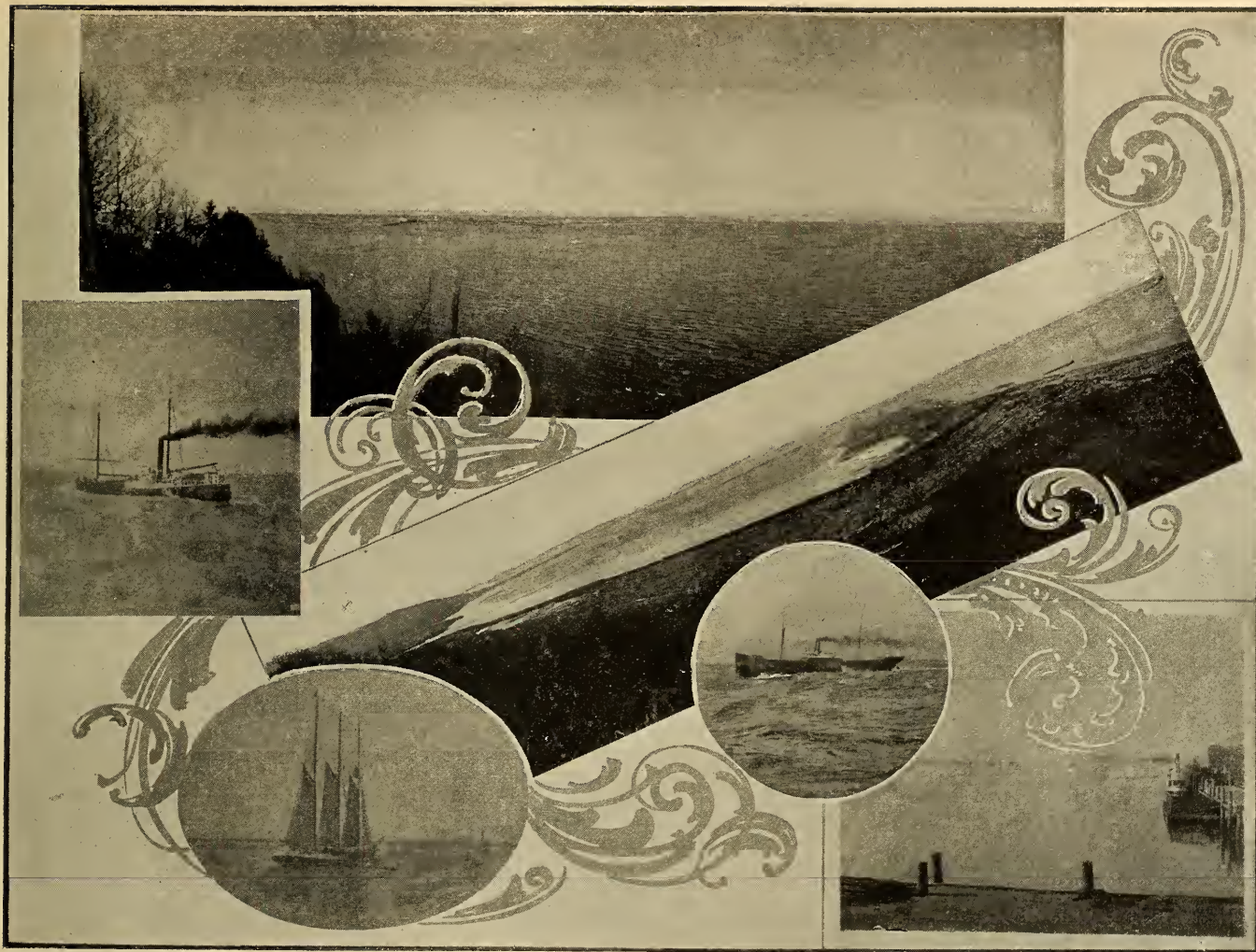
timber, permitting the shingles to be wide, clear, and free from the defects common to other woods.

Its better manufacture and appearance, due to the evenness and smoothness with which it may be sawed, and the greater care taken in the packing of the shingles. Redwood shingles will not suffer in appearance by comparison with those made of any other wood whatever; and smooth sawing is a positive good quality in a shingle, tending to increase its wearing qualities.

Its lightness when thoroughly dry, an item of much importance when markets are at great distances by rail.

Its fire resisting qualities, due to the absence of pitch and the presence of an acid which opposes combustion. Redwood shingles will burn, indeed; and so will granite walls under certain conditions. But redwood shingles do not easily catch fire, and a fire with redwood for its only fuel is more easily and effectively extinguished than if made of any other commercial building wood.

Its resistance to decay, and to weather conditions, is superior to that of any other wood used for shingle purposes. It warps, shrinks, or swells comparatively little; and properly put on a roof, redwood shingles will maintain their efficiency for from twenty-five to fifty years. It is a common occurrence here for shingles to be taken off a roof where they had been in place for upwards of thirty years, and the wood still be found in perfect condition. They will be found somewhat weather-worn, of course, as no wood can be entirely impervious to the wearing effect of dropping water; but the wood will still be sound and undecayed, and had the nails with which the shingles were fastened been as enduring as the wood, there would have been no occasion for the replacing of the shingles. In this connection it should always be remembered that redwood shingles—or shingles of any other wood whatever for that matter—ought not to be fastened on with the small wire shingle nail of commerce. A few years of exposure suffice to rust off such a nail at the head, thus loosening the shingles and causing the roof to leak; and in a little more time enabling the wind to blow the shingles off the roof. Even in its own country, the redwood shingle has suffered some in reputation from this cause; the blame for a leaky roof being placed



On the Bar

A View of the Bar from Buhne Point
Towing Across the Bar

Looking Over South Bay from Buhne Point
The 3,000 Ton Steamer Meteor on the Bar

Looking Down the Bay from the Vance Company's Wharf at Samoa

upon the shingles, when the real cause was defective nailing. Either the old fashioned substantial "cut" shingle nail, or a wire nail of good diameter and galvanized, may be used; but the ordinary slender wire shingle nail should be tabooed if shingle roofs are to maintain their efficiency.

In this county, shingle mills are scattered pretty much throughout the redwood belt, so far as that belt is accessible to the present means of transportation. Beginning at Scotia and going above Trinidad, each available spot discloses one or more of these busy factories. The following list gives all the operative shingle and shake mills in Humboldt County, with the number of machines in each. Although carefully prepared, no doubt there may be a few errors as to the number of machines given.

Name of Firm	Location	Machines			
		Hans	n	Hand	Shake
Pacific Lumber Company	Scotia and Rio Dell	7		2	3
Newell & McIntyre	Van Duzen	1			
G. W. Williams & Company	Van Duzen	2			
Lewis Larson	Van Duzen				1
D. J. Flanigan	Van Duzen	2			
F. W. Beckwith	Hydesville	1			
A. Masson & Co.	Rohnerville	2			1
Eel River Valley Lumber Co.	Newburg	2			1
Humboldt Milling Co.	Fortuna	2			2
Elk River M. & L. Co.	Elk River		1		
Holmes Eureka Lumber Co.	Elk River	1			
George H. Dinsmore	Elk River	1			1
Eureka Mill Co.	Elk River	2			
Humboldt R'wood Shingle Co.	Eureka	2			
W. G. Press	Bucksport	3			
McKay & Co.	Eureka		1		
Freshwater Lumber Co.	Eureka & Fr'hwater	5			2
Vance Redwood Lumber Co.	Samoa	3		3	
California Redwood Shingle Co.	Mad River	2			1
D. Barry	Eureka	1			1
Dolbeer & Carson	Eureka and Samoa	3		1	3
R. L. Haughey	Eureka	2			
Occidental Shingle Co.	Ryans Slough				
Wendling R'wood Shingle Co.	Kneeland	1		1	1
Bayside M. & L. Co.	Bayside and Eureka	3		1	1
Union Shingle Mfg. Co.	Arcata	2			
Minor M. & L. Co.	G'dale & Warren Crk	5		1	2
Humboldt Mfg. Co.	Arcata	1		1	1
Blue Lake Mfg. Co.	Blue Lake	2			
McCormick, Hauptman L. Co.	Mad River	1			
Northern Redwood Co.	Korbel and Riverside	3		2	1

C. A. Kallstrom	Little River	2		1
Humboldt Shingle Co.	Mayville	2		
E. C. Mowry	Fieldbrook	3		
Eastern Redwood Co.	Fieldbrook	3		
Clark Riley	Fieldbrook	1		
Daniel Hanson	Ryans Slough	1		
Total Machines		77	13	23

Prior to 1892, no reliable record of the shipments of shingles and shakes is obtainable, but beginning with that year, the records of the Humboldt Chamber of Commerce make the following showing:

Year.	Shingles.	Shakes.	Value.	Year.	Shingles.	Shakes.	Value
1892	303,118,250	20,611,614	\$530,483	1898	365,516,500	15,222,475	\$ 561,920
1903	334,203,750	18,759,725	520,338	1899	441,563,000	13,889,225	625,500
1894	253,954,500	20,956,925	420,340	1900	477,018,000	16,693,775	678,070
1895	297,937,500	16,434,775	415,960	1901	584,532,250	17,186,300	835,470
1896	239,350,000	12,392,450	323,700	1902	624,678,750	16,642,100	1,092,390
1897	367,290,250	18,453,475	492,775	1903	697,553,000	18,039,525	1,200,865

So long as there is redwood timber in Humboldt, the manufacture of shingles will be a more and more important feature of its lumber business. The present shipment of shingles is nearly 700,000,000 annually; the present plants are capable of cutting, if need were, about 900,000,000. Since the inauguration of the Shingle Manufacturers' Association, the business has steadily increased, and will probably continue to increase so long as that institution can succeed in making the industry reasonably profitable. With the advent of a trans-continental road here, and the making of rail freight rates on a equality with those enjoyed by the cedar mills of Oregon and Washington, an immense impetus will be given to this industry, and it is within the bounds of probability to predict that within three years after such a road is completed and opened for business, the production and shipment of redwood shingles will be more than doubled, and then only be at the beginning of its real growth. The shingle manufactured here is first-class and cheaply produced; the opportunities for an increased production are almost unlimited; the markets of the east seem capable of absorbing the output, however large it may be; nothing stands in the way of an immense development of this industry except the lack of a cheap, steady and



VESSELS AT THE ARCATA WHARF

direct means of conveying the product to the consumer. This can only be supplied through the coming of a transcontinental road; all other methods are of the roundabout and makeshift order. But when the railroad does come, as come it must sooner or later, then will the shingle manufacturer read his title clear to business success. And this success will be measured very largely by the unanimity with which the various manufacturers adhere to some common plan of action. Single handed, one manufacturer, even the most important, can have but little effect in influencing prices and freight rates; a combination of all the manufacturers becomes almost irresistible in either direction so long as its demands are within the bounds of right and reason. Besides, the difference in the expense in

marketing and collecting through the one channel offered by association and the many required by individual effort, is in itself an important item. The present Association has amply demonstrated to its members the value of unity of action, and the folly of fighting each other in a competitive market. "United we stand, divided we fall"; "In union there is strength,"—are two old mottoes that apply as well to business affairs as to the political action of which they were first written. And no business, or branch of business, is better suited to realize the full benefits of united action, or on the other hand, to feel the disastrous results of single-handed competition, than the shingle manufacturing industry of Humboldt County.

DAIRYING

THOUGH Humboldt is the natural home of the dairy and creamery, and a veritable paradise for meat stock, it was rather a tardy discovery when the fact was fully realized—and the discovery may be set down to the credit of our thrifty and progressive Scandinavian population. It is true that dairying in a small way was carried on among the hills near the coast shortly after the first settlement of the county, and is continued up to the present time; but the application of what are now regarded as the most valuable and productive lands of the county to that purpose, did not take place till along early in the eighties. A series of articles published from 1877 to 1880 in a local paper, urging farmers of the river valleys to adopt dairying in the place of grain raising on their small but marvellously productive farms, was generally met with disapproval by the valley people, and by distinct and emphatic "cussing" by many dairymen of the hills. But there was an element of the population coming in from 1870 to 1880 that was conversant with the more advanced methods of dairying and the handling of milch cows. They saw the open

opportunity, the great wealth that lay in the rich bottom lands and set about taking advantage of it.

From this movement, has grown the development we now see, and the change has been the salvation of the valley farmers. Under the former habit, or method, of trying to raise grain to compete with the great thousand-acre grain fields of the Sacramento valley, an Eel River farmer would sow his forty, eighty or one hundred acre farm in wheat, oats or barley; when harvest time came, he would have to get a harvesting crew; at threshing time a crew, with their attendant expense, and if grain were low, he would be obliged to mortgage the farm to settle up the year's expenses; and this went on till nearly every valley farm was plastered with a mortgage for about all it would bear. This was the condition of things in 1880.

Then the farmers gradually commenced dairying, and began to thrive and pay off their mortgages, and by 1890, there had been a complete transformation of the financial outlook for the valley farmers. Instead of ruination and foreclosure staring them in the face, mortgages had in a great measure been lifted, and those that remained sat lightly; prosperity encour-



THE MONITOR MONADNOCK IN HUMBOLDT BAY

aged the husbandman, and the "horn of plenty" seemed to be lavishing its gift on all hands.

That Humboldt stands as the banner dairy county, is due mainly to natural causes, to advantages of climate and soil and to both these factors credit is equally due. An equable climate, affected largely by the Japan current, cool in summer and warm in winter, results in an even temperature all over the dairy district; this effect is also assisted somewhat by the topography of the coast country. There are other sections, both north and south, which are also under the influence of the Japan current, and yet are subject to storms. The high mountains to the eastward, stretching their protecting arms around us—shield this section in a great measure from the storms which would otherwise sweep in from those directions. Thus the warm breath of the "Kuro Eiwo" spreads over the land in summer and winter, and is allowed to do a perfect work, and in the district affected by it, the grass grows greener, is greener longer, and imparts to the butter a better color and richer flavor, than is possible at points in the interior where the grass is soon withered by a semi-tropical sun, and the hills, early in the season, assume a brown and bare appearance. The coast country, both valley and hill, is also greatly benefitted by the fogs of summer rolling in from the ocean, in many places scarcely losing its verdure the year round, while a continuous sub-irrigation from the rivers and creeks keeps the valleys in fresh grass.

Dairying is now one of the most important industries of the county, second only to the chief business of lumbering. Considering Humboldt's somewhat isolated position, it has kept apace with the age in the improved methods; and with the creameries, butter-workers, cultures and careful regulation of rations to the milch cows, has reached a development that finds Humboldt nowise lagging in the race. The advent of the separator enabled dairymen to secure a greater per cent of cream than it was possible to secure by the gravity process, and the invention of the butter-working machinery insured a more cleanly and better method of washing and working butter. The cool climate, together with the improved appliances now at the command of creamery men, enable the butter-maker to keep thoroughly under control the ripening of the cream, and this, too, without the use of refrigerating

plants, which are so commonly used elsewhere. Again, the sweet and nutritious pastures, embracing clover, rye, orchard, and other varieties of grasses, impart a flavor which cannot be improved upon by the use of any of the popular cultures.

While native grass of the proper variety is one of the best rations extant for milch cows, it is not a balanced ration, and dairymen seek to supply lacking elements by the addition of other food. In order to tempt the appetite and supply an abundance of fodder that is not only succulent, but rich in the various desired elements, corn, peas, beets and carrots are grown in rotation. These, with the addition of bran and hay, keep the herd in good condition and insure a splendid flow of milk from ten to eleven months in the year. This is as long as cows should be milked in any one season. They need a short rest to insure the best results.

Dairying was first carried on in a primitive way in Humboldt county in the middle fifties. The natural ranges of the Bear river section were used for that purpose long before the richer, but heavily timbered Eel river valley had been cleared by the hardy pioneers. It was some twenty-five years later that the fertile valley land was devoted to this purpose. From 1880 to 1884 there were quite a number of dairies scattered through the valley, the butter being packed in kegs until about July, when the price would advance owing to the falling off in production in the lower counties; about this time packing would cease, and the butter be made into rolls and squares and shipped fresh till the end of the season. Before the advent of cold storage and irrigation in other sections, Humboldt enjoyed an advantage possessed by no other portion of the State, being able to produce an abundance of fresh butter from green grass, when the pastures in other dairying sections were dried and sere. It was at this season of the year, when the market was at its best, that Humboldt dairymen disposed of their stored stock of packed and pickled butter as well as their fresh output, at prices far in excess of their less fortunate southern competitors. None of the advanced methods had come into use then; the old method of setting the milk in pans was in vogue.

About 1890 the first creamery was built, although a year or two prior to that a progressive dairyman had purchased a small separator to use on his ranch. With the building



LOADING AT THE WHARVES IN EUREKA

of the Humboldt Creamery in 1890 at Arlynda, near Ferndale, commenced the creamery era in Humboldt, and soon placed the county in the lead in that industry for the State. The venture, as at first organized, was not a success financially, as it was often the case with the first attempt at new methods, yet it was the stepping stone to ultimate success far beyond the highest hopes of its projectors, and the loss made by the first stockholders has been paid back to the dairymen of the county one hundred fold by the results following this enterprise. The faulty construction of the plant, as at first placed, the purchase of the milk by weight instead of by test, also the crude machinery then in use, made the cost of manufacture about as much as the pan process. Since that time, the improved separators, combined churn and butter worker, with the assistance of the butter moulder and cutter, the invention of a Humboldt county mechanic, have reduced the cost of manufacture to a minimum. The only material effort now being made to obtain better results is the combination of all the creameries under one management, or what is commonly known as the trust system.

It took several years of experimentation and study before the separator principle was brought to its present state of efficiency; then other creamery appliances came in turn in the effort to get better results, until that branch of the industry seemed to be brought to so perfect a state that there appeared little room for further advance. Then the matter of full blood and high grade stock, the analysis and practical test of the different feeds, were entered into with diverse results and differing opinions. But it would seem that the difference in judgment on these things, however, was brought about mainly by reason of the condition under which the tests were made. For two or three years after the construction of the first three or four creameries, some dairymen refused to sell their milk, saying they could make their own butter at practically no cost, for the reason that there was always a man to spare between milkings to do the work. But the demand for creamery butter in the San Francisco and other markets became so strong that the price was forced up two, three and four cents above the dairy product. This practically settled the old process in the territory accessible to the creameries. The three or four creameries not being ca-

pable of handling the rapidly increasing quantity of milk that was seeking accommodation by the modern method, a number were built in quick succession, the majority of the stock being taken by the milk-producers, thus starting what are virtually co-operative creameries. This plan has been so eminently successful that practically all the creameries in Humboldt county are entirely owned, leased, or controlled by the producers themselves. Each is under the control of a board of directors which meets on the 13th of each month, and from the report of the manager, settles what price shall be paid for the butter fat from milk delivered during the preceding month. The price is based on the net sales of butter, less expense of manufacture. Pay-day is the 15th, when every dairyman receives a check in full settlement of the amount due him.

Creameries receive milk twice a day from March 1st to October 31st, and from November 1st to February 28th, once a day. When it is weighed, a sample is taken from each delivery, and every eighth day, or four times a month, the samples are tested to find the percentage of butter fat contained in them. The Babcock test is used, and although, as is usual among large numbers of people, there are some "kickers" who claim they are not getting as high a test as they should, there is general satisfaction among the great majority. The introduction of the Babcock test has benefited the dairy interests not only in the way of determining the value of the milk to the creamery, but also in enabling the dairyman to decide what cows are profitable to keep, and which to "weed out," the creameries doing the work gratis for their patrons. The average test taken from one of the largest creameries here for a year was about four per cent, or, to give the exact figures, 3.99 7-10. This average test has been steadily increasing, owing to the fact that the progressive dairyman has taken advantage of the testing process to find out the actual value of each one of his herd.

The breeds mostly kept in this section are the Jersey, Durham and Holstein, some dairymen having a preference for one, some another. A conservative opinion, formed by hearing many discussions on the subject is, that in the large dairies of sixty to one hundred cows, the best results are obtained from the Durham and Holstein, but in the ten to twenty



White Deerskin Dance



Making Baskets



A Camp in the Hoopa Reservation



Scenes in Hoopa Val'ey

A Chief in Full Dress



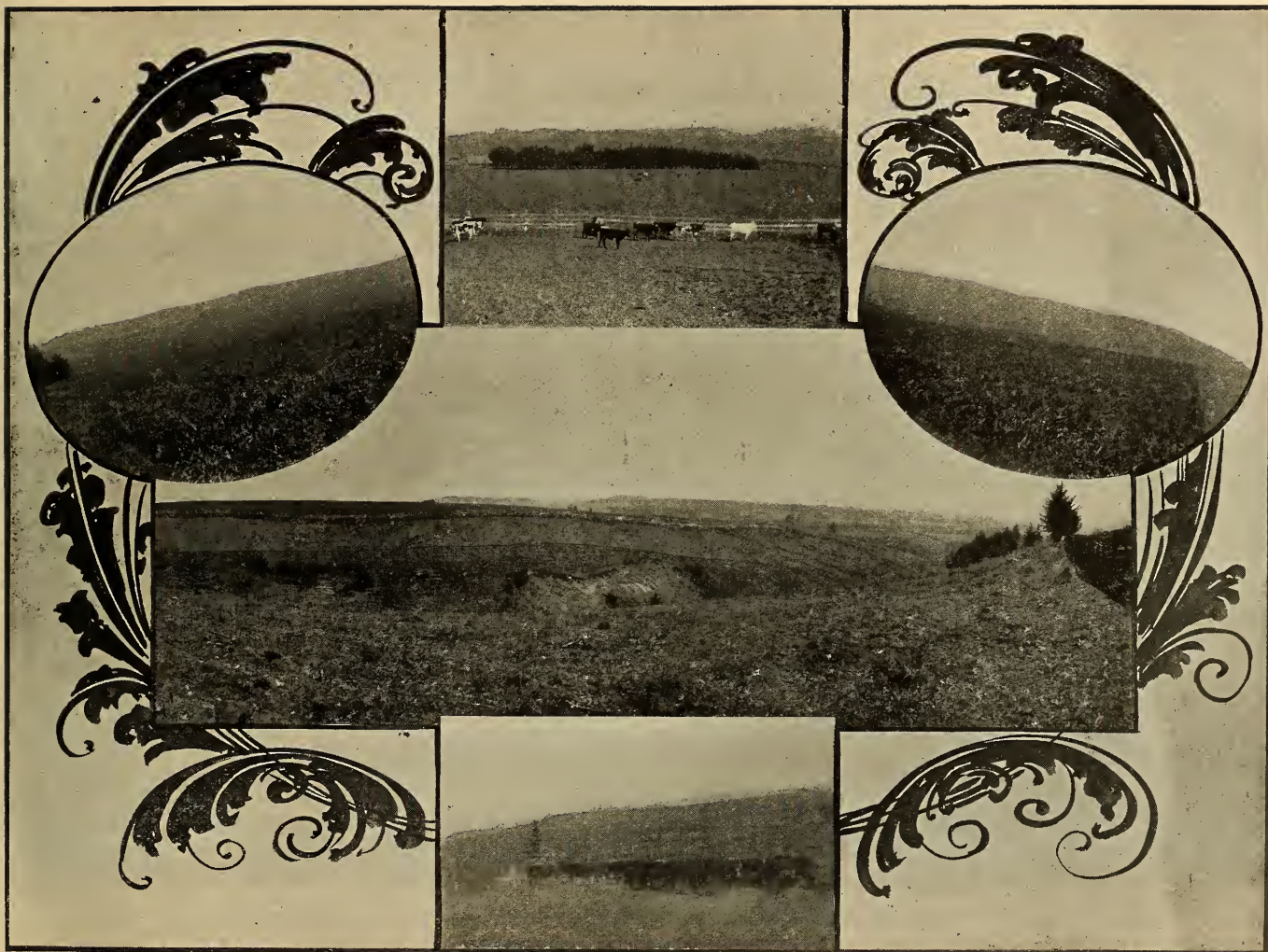
Along the Klamath River where much Mining is Done

An Indian Spearing Salmon, Klamath River



Dairy Stock
The Younger Generation

Looking over Some Dairy Farms
Views on a Dairy Ranch Near Eureka, Showing Upland Pastures



SCENES ON A DAIRY FARM SHOWING CHARACTER OF THE PASTURAGE

cow dairies, where the owners are milking, feeding and caring for their own stock, the gross earnings per cow are greater with the Jersey.

The average gross earnings per cow for the season are about \$60 to \$65 in the large herds, and \$70 to \$80 in the small herds, demonstrating the fact that the greater the amount of care and labor bestowed on the stock, the larger the returns.

In the spring nearly all the skimmed milk is carried away by the patrons for the purpose of feeding the calves, which are sold at the age of three or four months, to the different stock men in the hills, or bought by agents and shipped to other parts of the State. The prices realized are from \$6 to \$9, according to size, breed and quality.

When the calves are "turned off," hogs are purchased by the creameries, and skimmed milk utilized in fattening them for the market, middlings, barley and other grains being used to balance the ration. When in proper condition, the hogs are sold to the local butchers or shipped to the San Francisco market.

Very little cheese is manufactured in Humboldt County; as the price obtained for butter made here is far in excess

of that made in the southern counties, therefore our southern competitors are able to place cheese on the market at prices that would be less remunerative to us than by turning our milk into butter. However, the Grizzly Bluff Creamery makes enough cheese to supply the local demand and the quality is such that it is able to dispose of it at prices averaging two cents above the San Francisco market.

Of late years the amount of land available for dairying has been largely increased by the reclamation of the marsh lands. It has been found that salt marshes, after being diked, freshened by the bountiful rainfall for a couple of years, and seeded to grass, can hardly be excelled for dairying purposes. Several thousand acres have been thus reclaimed, and more reclamation projects are under way.

A more definite idea of the extent of the dairying industry may be gained by reference to the table given herewith. The figures are taken from the annual report of the Board of Harbor Commissioners of Eureka for 1903, and show the exports for that year. They do not of course, include the dairy products consumed in the county, and this amount is by no means small.

Exports of Dairy Products from January 1, 1903, to January 1, 1904:

BUTTER.			
Article	Number.	Pounds.	Value.
Butter, boxes	31,539	4,163,148	\$1,040,787
Butter, kegs	868	86,800	17,360
Butter, barrels	164	65,600	13,120
Butter, tubs	463	27,780	5,556
Butter, cubes	3,226	258,080	64,520
Butter, canned, cases	715	85,800	21,450
Totals		4,687,208	\$1,162,793
OTHER DAIRY PRODUCTS.			
Condensed Milk, cases	13,903	667,344	\$ 62,569
Condensed Cream, cases	12,624	605,952	50,496
Totals		1,273,296	\$ 113,065
Grand Totals, Dairy Products.....		5,960,504	\$1,275,858



A TRACT OF RECLAIMED MARSH LAND, JUST NORTH OF EUREKA, USED FOR DAIRYING PURPOSES

LIVE STOCK AND KINDRED INTERESTS

THE live stock interest is one of much importance to Humboldt County, not only because of its present healthy condition, but because of another and perhaps more significant fact, that it is destined to remain one of our prominent industries. The pasture land is perpetual pasture land. The abundance of rainfall during the winter months, the long, warm summer, and the generally rich soil, are sufficient guaranties in this direction. If more were wanted, it would be necessary only to refer to the long years of successful stock-raising which has given Humboldt a foremost place among the stock counties of the Coast. Of course there have been slack years; but they can be traced almost wholly to causes outside of the business itself.

It is now half a century since the first stock was driven into the county—from the Sacramento valley. The horse and the mule are, of course, to be counted among the argonauts, for the men who fought their way hither did not come afoot. But it was some years after the settlement that horses came in bands; and then—as we may imagine, they were not noted for high breeding. Even as late as thirty years ago, it was difficult to find an animal much above the grade of the cayuse. But a little later—say twenty-five years ago—some well bred animals were brought here, both light and heavy horses; and from that time on, there has been steady improvement. The result has been a complete demonstration of the fact that Humboldt is peculiarly fitted for the breeding and development of the highest type of the horse. The performances of Wayland W., Jack W., and Eureka, in the 2:12 and 2:20 classes during the last two or three years, with a goodly number of scarcely inferior animals, whose trials have been witnessed on our local tracks, furnish all the evidence that is needed as to speed qualities.

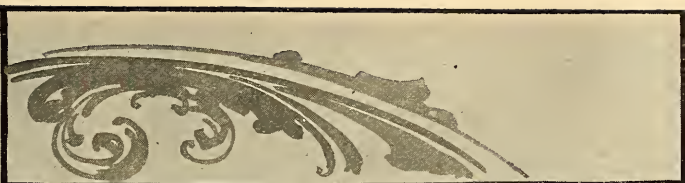
The horse for all work—everybody's horse—is not the extremely heavy animal affected by some communities. Our

people have found that, for all purposes, a twelve or fourteen hundred horse will render more service, and last longer, up hill and down, than the ponderous, slow-gaited beast with a foreign name and long pedigree. So, they have generally crossed this French or English stock upon the native, which has given to the county a remarkably good average class of horses. Almost every farmer now-a-days has a team that is able to haul him out of any trouble. This could not have been truthfully said a few years ago. To be sure the scrub horse is still in existence, but he is certainly passing. He is only waiting until the better animal shall come in sufficient number to render his presence unnecessary.

There are 450 mules in the county, nearly all of them being used as pack animals. The mule is a fad in some of the middle-western States; but for some reason, it has not been able to properly present its good and enduring qualities to the people of Humboldt. Mule statistics, as relating to this county, are very meager; but there is undoubtedly a field for the humble beast here, and an honest dollar for the man who knows how to raise him in reasonable quantities.

According to tradition, the first band of cattle was driven into Humboldt by Reed and Kinman, in 1883. This first lot was taken to the extensive ranges in the Bear River section, and were probably emigrants from beyond the Mississippi, as were most of the cattle in northern California at the time. Other small bands followed during the next two years, and then came a large drive, almost direct from Illinois. This was the first venture of Pioneer W. T. Olmstead. Fifty head of two-year-olds from this band were sold to parties at Arcata for fifty dollars a head—rather better prices than obtain at the present day for small cattle. These, with other bands that came in from Oregon, were the pioneers of the northern ranges.

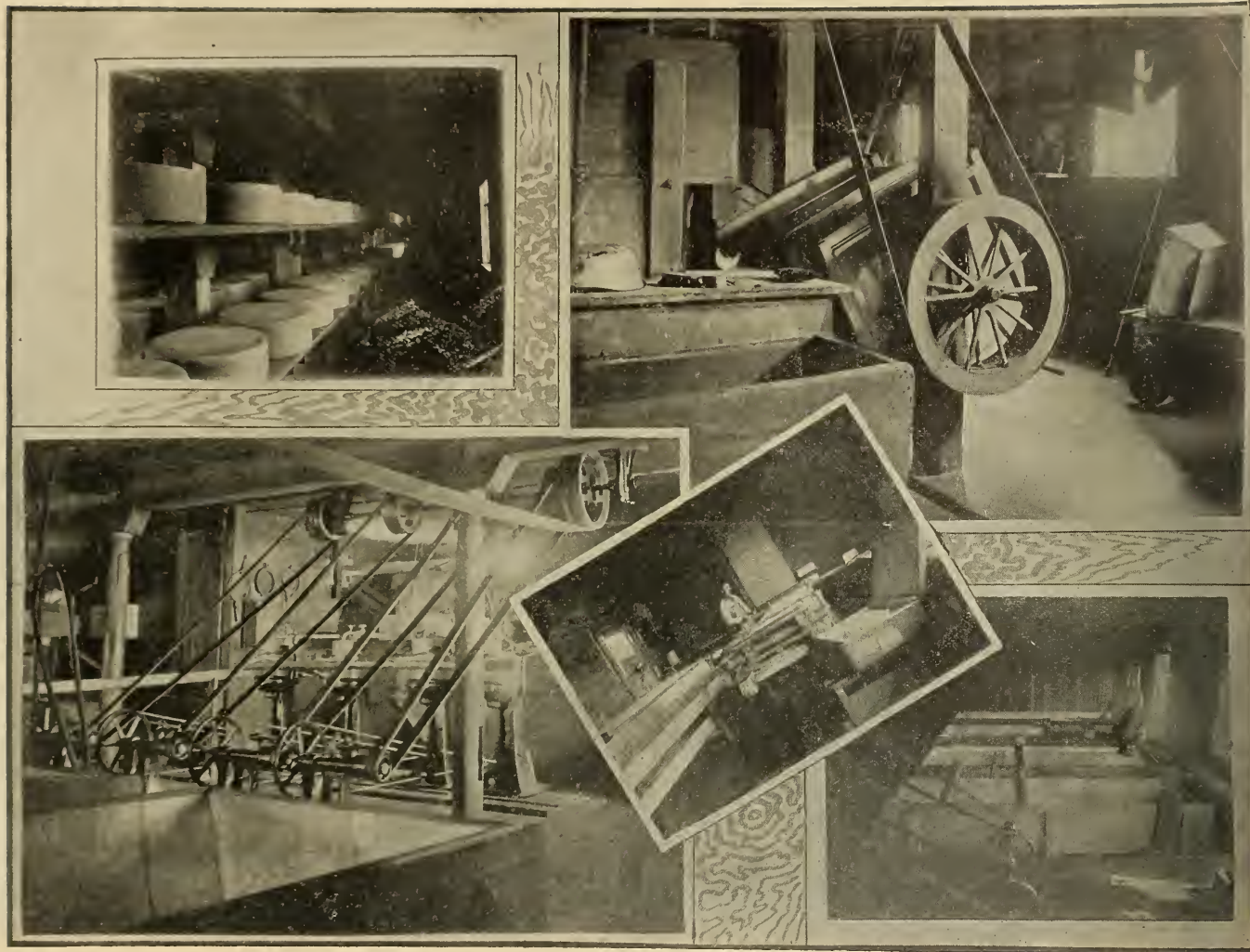
But the business had its draw-backs in those early days. Pasturage was abundant, as it is today; but the Indian was



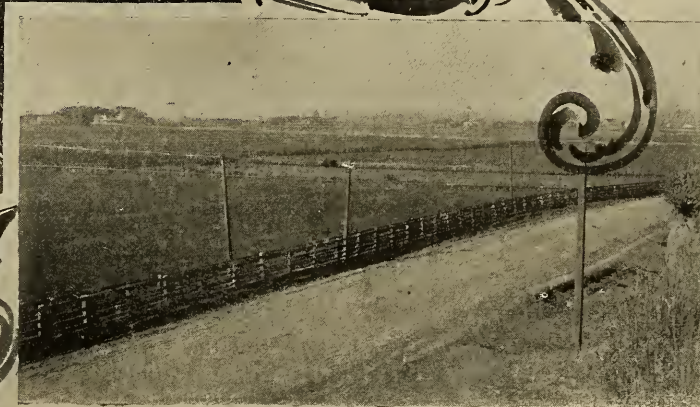
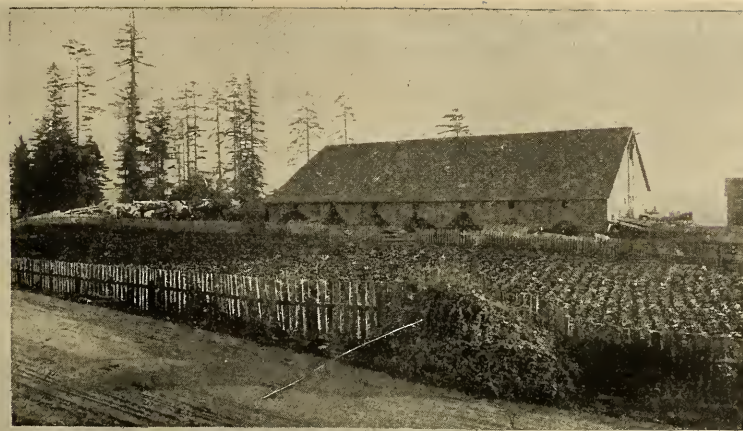
Eureka Creamery

Humboldt Creamery

Excelsior Creamery



INTERIOR VIEWS OF A CREAMERY



SCENES ON A DAIRY FARM NEAR ARCATA, AND ON ARCATA BOTTOM

quick to learn the value of a steer—he was easy to catch and good to eat. This knowledge led to a rapid thinning out of the herds, and it was not until well along in the sixties, that the stock man of Humboldt felt at all secure in his bovine property.

With a feeling of safety came the beginning of an effort to improve the wild stock. Finally, when dairying got under way, the breeding-up idea took a firm hold upon the herdsmen, but it would be difficult to say just where and just when the break-away occurred. Meantime the business was growing and spreading, and finally the county became what we know it today—a first-class stock country. From the very small and spasmodic efforts of fifty years ago many large fortunes have been made, and many more are still waiting for the patient, painstaking man of the future.

Among the men who made the most of the opportunities that offered in the early days, may be mentioned the late Joseph Russ and the late Domingo Zanone. Starting with no capital but good faith in their undertakings, these men acquired great fortunes, and left to their descendants princely estates and honorable records. But the cattle men of the past were not all millionaires. There were some failures along with the many successes. There have been, as there always will be, good years and bad years in the cattle business. But in the main it has been a paying business, and the outlook is exceedingly good. The principal cattle ranges today are in the Bear River section—chiefly owned by the Russ estate; and in the Bald Hills section, to the north and east, where the holdings lie about equally between the Russes and Thomas Bair, of Arcata. These, with the less important holdings in various parts of the county, turn off from 7,000 to 10,000 head of beef cattle annually, having a cash value of about half a million dollars.

A careful census would show not to exceed one hundred thousand sheep in Humboldt. Of these, practically all are what are known to the assessor as "common."

Political conditions of ten years ago had the effect of diminishing the flocks to such an extent that, for a time, it was believed sheep husbandry would be abandoned. The price of wool went down almost to the vanishing point, while

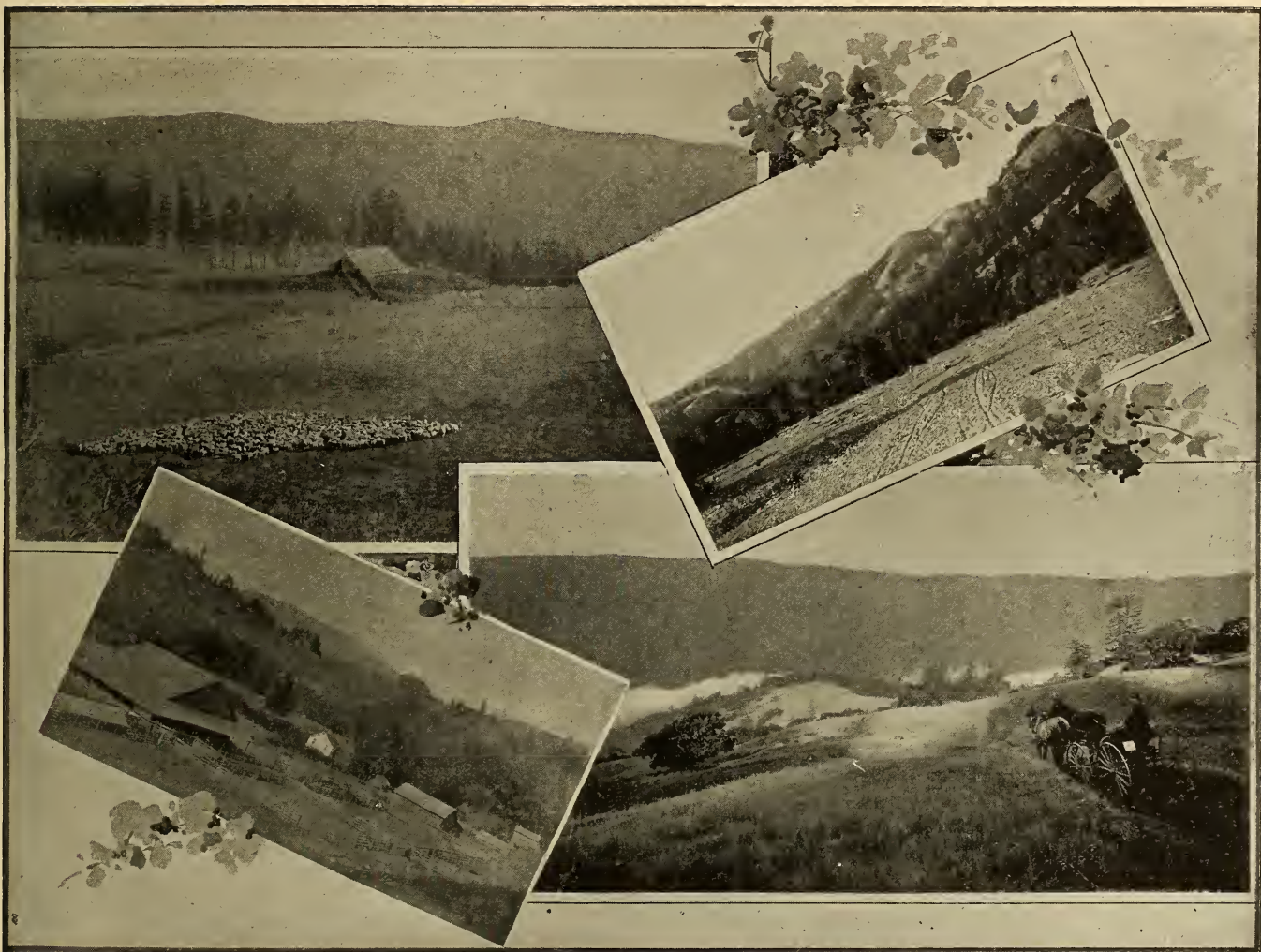
the output fell away nearly one-half, and discouragement took possession of the ranges. But with new conditions came also new hope, and the flocks are again increasing, and the sheep man is reasonably prosperous and happy.

The ranges are nearly all in the open, rolling and hilly country east of the redwoods. On Redwood Creek, at the north, are the properties of Lyon, Hooker, Bair (both sheep and cattle), Berry, Crogan, Russ estate, and a number of smaller ones. The Cooper, Foster, Hunter, and many other ranges are in the Mad River section; and, still further south, in the Van Duzen section, are the McClellan, Porter, Robinson, Burns, and other important ranges stretching away to the county line on the east. And still to the south, in the Eel River and the Mattole countries, are Russ, Robertson, Tuttle, and others, large and small. These ranges cover a vast scope of country, well watered and easy of access, and are probably capable of carrying a great many more sheep than they now support. As it is, they turn out annually something like twelve thousand head for the shambles, and produce about 1,500,000 pounds of wool.

It is worth remarking here that Humboldt wool has always commanded the highest prices, and is held as *A1* in the market. Good climate and good feed, together with clean fleece, account for this fact. It was these conditions which induced the building of our splendid woolen mill, which, in turn, has stimulated the sheep men to an increase of their product. There is no complaint of over-production, especially of the higher grades such as Humboldt produces.

It would seem that the supply of hogs is seldom up to the demand. The business of shipping live hogs to San Francisco has grown to considerable proportions in the last few years, and several shipments direct to Honolulu have also been made.

Years ago a pork-packing concern was established on the county road just beyond South Park—then outside the city limits. Here the hog was reduced to bacon, hams and lard, and marketed chiefly in San Francisco. The industry was short-lived, and the curing of meats is now confined to the various butchering establishments. Our main reliance, however, is upon the great packing concerns of the east, whose product we get from the grocer, and even from our local



Sheep Range in the Hills

A Hill Stock Ranch

Character of Uplands



A Hay Field in Eel River Valley—The Number of Hay ocks Shows the Heavy Yield

A Stand of Grain

Young Orchard



THE HUMBOLDT BAY WOOLEN MILLS, EUREKA

butchers. This is not because the porker is a failure here—far from it. But rather because the business of hog-raising has not been diligently prosecuted.

IN GENERAL.

The better to illustrate the importance of this live-stock interest and the products thereof, we give a summary of statistics for the year 1903. This statement represents the steamer shipments, except as to cattle and sheep. The number of cattle includes those driven out so far as obtainable at this time—750 head. The number of sheep shipped is given as 1310; we have added 4,000 to this, because that seems to be a fair average of the number which is annually driven out from the southern ranges.

Kinds	No.	Value.
Horses	56	\$ 7,000
Cattle	4,357	234,278
Calves	1,853	22,236
Sheep	4,809	14,427
Hogs	394	5,516

It has been remarked that Humboldters are meat eaters. This seems to be verified by the work of our butchers, from whom it is learned that we eat nearly as much meat as we send abroad. From inquiry among those who should know, the following figures are given as representing the number of animals slaughtered for home consumption during the year last past:

Kinds	No.	Value.
Cattle	4,320	\$172,800
Sheep	6,240	18,720
Hogs	6,720	67,200
Calves	400	4,000
Total	17,680	\$262,720

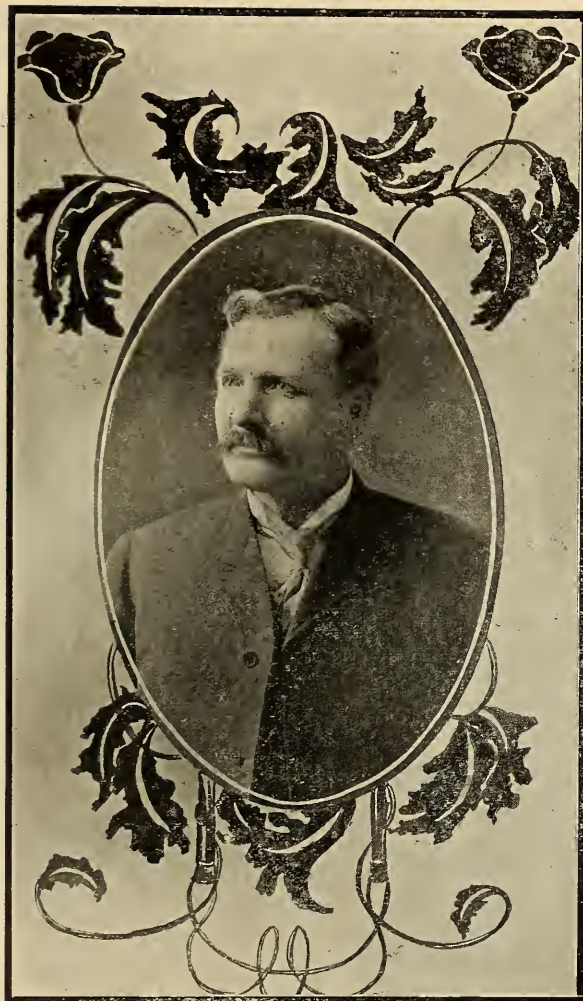
Following is a list of the products of the range and ranch. The items with their values form an interesting chapter in the story of our material prosperity. They show the shipments by steamer to San Francisco for the year 1903:

ANIMAL AND ANIMAL PRODUCTS.

Article.	Number.	Pounds.	Value
Beef Cattle, head	3,607	3,246,300	\$ 194,778
Calves, head	1,853	370,000	22,236
Live Hogs, head	2,892	578,400	28,920
Sheep, head	809	72,810	2,427
Dressed Veal, carcasses.....	722	108,300	9,747
Dressed Hogs, carcasses	394	78,800	5,516
Mules, head	17	18,700	1,700
Horses, head	56	67,200	7,000
Tails and Trimmings, sacks	240	14,400	288
Tallow, barrels	216	64,800	3,240
Leather, rolls	2,312	462,400	138,720
Glue Stock, sacks	1,617	161,700	3,234
Hides and Pelts, bundles	2,900	580,000	29,000
Totals		5,824,410	\$ 446,806



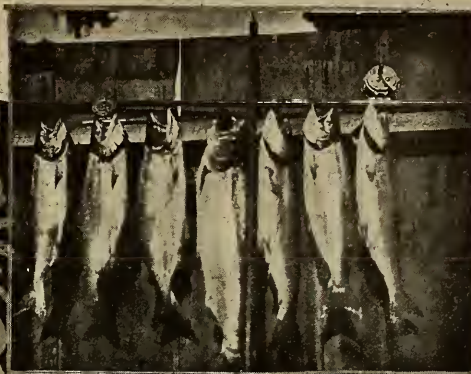
PLACER MINING IN NORTHERN HUMBOLDT



CONGRESSMAN J. N. GILLETT



DISTRICT ATTORNEY OTTO C. GREGOR



A Camp in the Hills

Shooting Grounds of the Clay Pigeon Club

A Catch with Light Rod and Trout Line

In the Deer Country



SUPERIOR COURT JUDGE E. W. WILSON

Notwithstanding the rather heavy draft upon the animal life of the ranges, it is more than probable that the current year will show considerable increase over 1903. For that year the Assessor found:

Beef and Stock Cattle.....	19,478	
Cows	18,324	
Calves	10,318	48,110
Sheep, graded	523	
Common	78,558	79,081
Hogs		5,504
Horses and Colts		6,323
Mules		387

A word or two as to poultry—for the subject seems to belong here. So far there has been nothing done here in this line.



SUPERIOR COURT JUDGE G. W. HUNTER

The man who raises a few chickens in his back yard sometimes fancies himself in the poultry business. But he isn't. The successful, paying, poultry business means acres of land. It means close attention to flocks and to the business side of the calling—the study of markets and fads and fallacies. The idea that a few chickens and the watchful care of God Almighty will make a man a living, has long ago been exploded. When Humboldt catches up with the hen procession she can as well succeed as any county in the State—better than most of them.

Considerable ranch property has changed hands of late years—in some cases bringing new energy, new blood, and new ideas to bear upon the problem. Whether this means increased flocks and herds will be known to the future. There is certainly more money behind the business now than in former years, and there is more to encourage its use



STATE SENATOR THOMAS H. SELVAGE



ASSEMBLYMAN GEO. T. ROLLEY



R. L. HAUGHEY AND HIS NEW SHINGLE MILL IN EAST END, EUREKA



View of Second Street, Eureka, from F Street, Looking Eastward

View of Fifth Street, Eureka, from F Street, Looking Towards the Bay

TANNERIES.

A very important by-product of the cattle ranges is the "gold-medal" leather which is manufactured at our tanneries. It is more than likely that our own people are not aware of the dimensions of this business, or of its value to the county at large. The Thomas Devlin Company—or the Arcata Tannery, as it is locally known—is an old establishment, having been started by Thomas Devlin in 1866. Weathering all the storms incident to a pioneer beginning in a pioneer community, and having established the fact that first-class leather could be made here, the business was incorporated and enlarged, until it now has an annual capacity of 26,000 sides of leather.

At present, however, the output is 16,000 sides of harness, 300 sides of "sole," and about 1000 kip, veal and calf skins. Mr. Devlin may well feel proud of its success; for the "Thomas Devlin leather" holds first place among all the leathers made in this country, if not in the world. The highest award made at the Chicago Columbian Exhibition; at the Mid-winter and Mechanics' Fairs in San Francisco; the Sacramento and Dallas (Texas) State fairs, are sufficient evidences of its superiority.

The product of the Devlin tannery goes direct to the New York market.

Arcata is also headquarters for another important tannery—the Davis & McCabe Company. Their works, however, are at Freshwater, some six miles distant. The capacity of this tannery is 12,000 sides of harness leather exclusively—and the product goes direct to St. Louis, Chicago, and other centers of the middle west. The fact that the demand for this company's leather is always ahead of its ability to fill orders, is the best guaranty of its quality. The plant was established some twelve years ago—long enough to have gained a valuable reputation, both at home and abroad. The works give steady employment to fifteen men.

A smaller plant has long been in operation at Rohnerville. The product goes into the local market and to San Francisco.

During the last calendar year there were shipped from the county 2312 rolls of leather. In weight this amounted to 462,400 pounds, having a market value of about \$150,000. The local consumption of leather would probably bring up the total to \$175,000.

MINERAL RESOURCES



WHILE Humboldt County has reached its present development largely as a result of its lumber and dairy interests, it possesses several resources which promise to exert in the future, a still greater influence. There is within the county an oil belt, the limits of which have not yet been demonstrated. It is known, however, to be very extensive, and the oil, which has a paraffine base, commands a much higher price than the bituminous product of the southern fields of the State.

Gold was discovered in Humboldt County as early as 1849, and some of the mines have been worked continuously since, but the industry has not received that attention here that has been given it in localities possessing superior transporta-

tion facilities. The principal deposits thus far discovered are located in the mountains in the eastern and north-eastern portion of the County, along the Trinity and Klamath rivers and their tributaries, in districts as yet reached by trails and rough mountain roads.

Miners naturally first sought placer ground, as appliances for handling quartz were not at hand. As early as 1849 rich placers were discovered along the Klamath and Trinity Rivers, and from that time have been worked with uniform success. There were few sections indeed where miners did not secure from \$5 to \$20 per day per man, while \$100 per day was not uncommon. In numerous instances the income was still greater. The largest nugget, which was found on New River, weighed \$1700, while there were several weighing



VIEW OF F STREET, EUREKA, LOOKING SOUTH FROM SECOND STREET



G Street Looking East from Second Street

STREET SCENES IN EUREKA
E Street Looking Towards the bay

Third Street Looking North from E Street



Interior View

THE BANK OF EUREKA, CORNER THIRD AND E STREETS, EUREKA

The Bank Building

between \$300 and \$400. This continued, until the introduction of the hydraulic system of mining, about 1870, when the placers were worked with still greater profit.

Quartz mining first attracted attention in the County about 1860, and a number of ledges have been profitably worked since that time. Figures, absolutely reliable, in regard to the output of each mine during the intervening years, are not attainable, but a number of the quartz mines along the Salmon, Trinity and Klamath are known to have been great wealth producers, the ore ranging in value from \$10 to \$540 per ton. The County still possesses much ground that has never been thoroughly prospected, and there are those, conversant with mining, that assert that a combination of capital with systematic exploration will result in making this one of the important mining counties in the State.

For many years experiments had been made, in a slow tentative manner, to reclaim the gold known to exist in the sands forming the north-western beach to exploit the deposits that had been proven to exist at Little River, and the famous Gold Bluffs; but from a variety of causes, chiefly lack of capital to install the requisite plants, added to a want of knowledge of the best methods of handling the sand, the different undertakings proved non-remunerative, and the deposits were allowed to remain unworked, or at best were only operated in a very inadequate manner. Matters remained in this condition until the early days of 1900, when Mr. F. M. Shideler, who had had an extended experience in different phases of mining, made a careful examination of the sands, and satisfying himself by careful prospecting of the values contained therein, obtained control of the various holdings in the neighborhood of Little River beach. Interesting eastern capitalists in the project, a company was incorporated, known as the Pacific Beach Consolidated Mining Company, and a plant erected. The mode of operating is to pump the sand, by a centrifugal sand pump, which is discharged into an inclined circular screen, kept continually revolving. This allows the finer particles to pass through, whence they are conveyed, by a distributing trough, to a series of amalgamating plates. On leaving the plates the sand and concentrates pass over a blanket system, which catches the black and rusty gold,

not susceptible to amalgamation, as well as the concentrates, which consist of platinum, iridosium, and other valuable platinum metals.

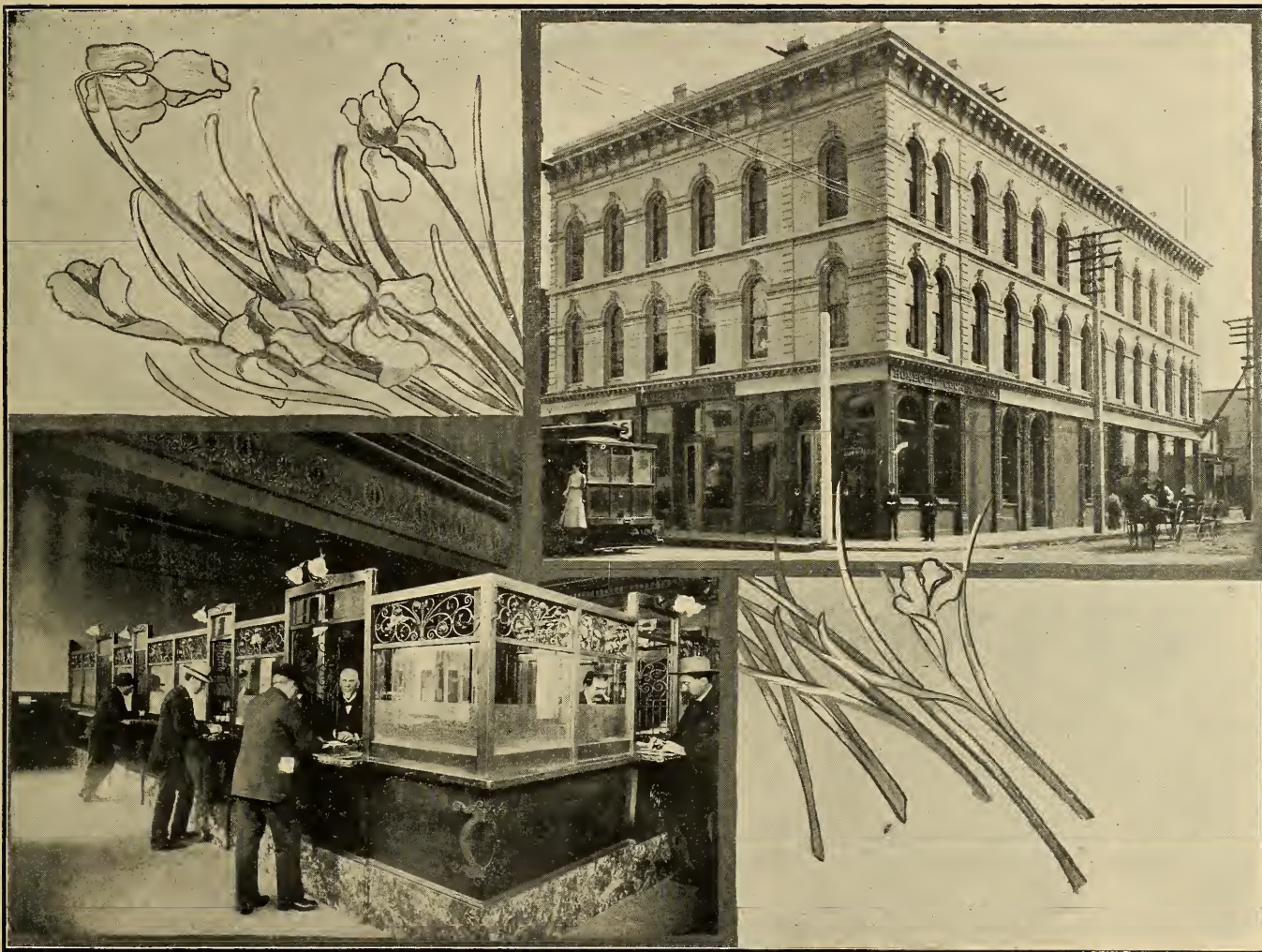
The depth of sand to bed rock, averages eighteen feet, the gold being disseminated throughout the entire mass, but being especially rich for a depth of about nine feet immediately overlying bed rock, a blue clay shale. The plant handles, on an average, seven hundred tons per day and seven men are employed. The output is from thirty to fifty ounces of gold dust each week, worth fourteen dollars per ounce. The concentrates vary in richness from \$300 to \$1700 per ton.

Extensive deposits of cinnabar exist at several localities within the County, notably on the Klamath, at the mouth of Horse Creek, near the boundary line in the south-eastern portion of the County; on Rainbow Ridge, south of Scotia, where the vein can be traced a distance of four miles; and on the Klamath, opposite the mouth of Blue Creek.

Coal has been discovered in numerous places, notably at Iaqua Buttes; on Upper Eel River; on the South Fork of Eel River; near Arcata; on Boulder Creek. It is, however, lignite, hard coal having been discovered in but one locality, near Garberville.

Copper ore exists on Red Cap Creek, eight miles south of Orleans Bar, where there is a ledge eight feet in width; at a point a few miles east of Arcata; near Iaqua, where the vein can be traced a number of miles. A specimen from this vein, discovered in 1869, assayed sixty-five per cent pure copper; and near the head of Bull Creek, where a strong ledge, traceable for nearly two miles, has been located, and a company—the Rainbow Copper Mining Company—incorporated to develop the same. This company possesses twenty-one locations, made in the early part of 1901. The ledge strikes in a direction from north-west to south-east, and is nearly three hundred feet wide between the hanging wall of limestone, and the footwall—a grey sandstone. Two prospect shafts, respectively twenty and ten feet deep have been sunk on the upper end of the ledge, picked specimens from which assayed from fourteen to forty-eight per cent copper. A cross-cut adit, near the lower end of the ledge is in fifty feet, the face of which is in the main ledge, in fine looking rock.

Granite exists on the north bank of Mad River, a few




Exterior and Interior of the Humboldt County Bank. Corner of Second and G Streets, Eureka

miles north of Arcata, from which quarry 12,000 tons were secured for the construction of the St. George reef light-house.

In several portions of the County there are small de-

posits of lime rock, iron, potter's clay, and other minerals which energy and capital promise to make commercially valuable.

FRUIT

HE soil and climate of Humboldt County is well adapted to fruit culture. Many varieties are produced, but the apple and prune constitute the only ones that have as yet attained commercial importance.

Humboldt apples have of late years gained a reputation for quality and freedom from pests, and the culture of this fruit promises in time to be one of the leading agricultural pursuits. Some orchards planted over thirty years ago, before the varieties best adapted to this soil and climate were known, naturally yield poor results or produce fruit that has limited market value. Most orchards planted within the past ten years have turned out well. We have one in mind covering an area of seven acres, which last season produced fully 2000 boxes of merchantable stock, entirely free from any infection.

The principal varieties represented are Rhode Island Greenings, Belle Flowers, Wagners, Stark and Baldwins, and these include the ones best adapted for cultivation in Eel River Valley proper. A better apple belt for some varieties, lies in the region extending south between Pepperwood and Phillipville, that being practically beyond the line of coast fogs. The small valleys running at right angles with the main streams afford more protection against summer winds. Camp Grant, Bull Creek and Salmon Creek, on the South Fork, represent this district. On alluvial soil lying near the main streams, trees grow very thrifty and leafy, and while this in some cases prevents the full coloring of the fruit, it also affords protection from sunburn, and abundant crops are the rule.

The Mattole section must also be included in this belt. Apples there have the advantage of being somewhat firmer

and are later keepers. Owing to the difficulty of transportation, these sections have as yet been developed only in a limited way, but improved facilities for marketing will promptly encourage more extensive planting. Eel River Valley proper therefore, constitutes the principal fruit-bearing section at present.

PESTS.

Notwithstanding that many orchards are small and have for years constituted neglected attachments to dairy farms, this county has been but slightly affected with insect pests. Outside of the Oyster-shell Scale, the only threatening affection is the San Jose or pernicious scale, and that is mostly confined to sections removed from the coast belt. With increased inter-communication and new settlements, the San Jose scale became more prevalent in the warmer sections, naturally spreading from orchards where it had obtained an early foothold. With limited proceeds accruing to growers at distant points, it was at first difficult to arouse proper attention to spraying, but gradually the importance of vigorous measures became apparent, and under the direction of the County Board of Horticultural Commissioners, the work done has shown good results. It is evident that the San Jose scale has been entirely eradicated.

CROPS.

Crops as a rule are fairly regular. Weather conditions never cause what might be termed a failure. Increased production from new orchards set out and coming into bearing will continue for several years, and while new settings have not been extensive, they are on the increase, and will constitute a decided gain over what may be discarded and replanted.



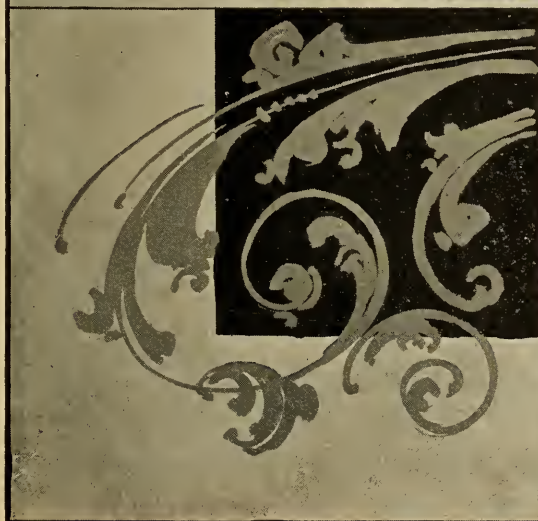
The Carnegie Library
New Ward School Buildings Erected in 1903



Dr. R. Gross' Residence

SOME EUREKA HOUSES
Residence of C. G. Stafford and Mrs. David Evans

Alexander Connick's Residence



The New Grand Hotel, Corner of Second and C Streets

The New Georgeson Building, Corner of Fourth and E Streets

The present average export of apples is estimated at from 50,000 to 60,000 boxes, and we may say even under existing conditions, that a point has been reached according Humboldt fruit a pronounced reputation for quality and healthy condition. This implies absolute freedom from codlin moth, and with the other advantages that experience affords, promises to bring this district to the front rank of apple producing sections.

PEACHES.

Peaches grow to perfection in some sections of the county, but as yet are not produced in quantities beyond the home demand. Like most other fruits grown here they mature late as compared with sections lying further south, and consequently earlier demands are supplied from that region. The main portion for home consumption is raised along upper Eel River where late frosts frequently limit the crop, but in the more elevated regions the opportunities for extensive culture are made abundant by the availing of the hundreds of sheltered nooks and valleys which are found in the warmer belts extending east. This has been proven in a limited way and has led to their being sent to market in the dried state, commanding in some cases the highest prices quoted. In sections lying along the Trinity and Klamath Rivers, the same opportunities exist.

With increased development of transportation, more extensive planting would result, as it would enable growers to reach other markets at a time when the supply was less abundant, thus insuring better returns. While this opportunity would vary according to the season's yield throughout the State, this fruit in its dried form would always be certain to find a ready market.

APRICOTS.

Apricots may also be counted among the fruits that may be successfully grown, but so far the product is limited, the remoter regions above referred to, being best adapted to their culture.

PRUNES.

Some years ago a few orchards of French prunes were set out on a commercial basis, and with the numerous smaller orchards coming into bearing, have proven this fruit also

among those that reach a high standard of quality. Humboldt prunes took the premium at the Chicago World's Fair.

Owing to its extensive culture in other sections, and the difficulty of obtaining needed help during the drying season, further planting has been restricted. The home market has of late years been principally supplied by this county's products, and with improved knowledge as to methods of drying, Humboldt dried prunes are now given the preference by local consumers.

PEARS.

Many varieties do well and in some sections they grow to perfection, including the Bartlett. The local market is supplied after the season begins here, and a limited surplus finds late stock to justify shipping elsewhere. The future establishment of canneries, fully justified by the present outlook, would naturally lead to increased production of this fruit as well as of most others referred to.

CHERRIES.

Conditions favor the growth of the cherry in most parts of the county. Small plantings are numerous in all sections. The Hydesville district embraces most of the orchards that supply the markets of the county. As they ripen late a ready supply for distant shipment would command good prices and would justify more extensive planting.

STRAWBERRIES.

are greatly sought after when the season opens owing to their distinctive flavor and firmness contrasted with those raised in warmer sections, where irrigation is required. This applies to other berry fruits, including raspberries, currants, and the cultivated blackberry. The latter grow very thrifty and attain unusual size. The Logan berry must also be included in the list. The plantings so far set out, have shown this fruit to be exceptionally adapted to this section and the supply has been readily absorbed. The opportunities for the establishment of canneries are good, and most of these berry fruits mentioned, if preserved, would no doubt find their label to designate the highest standard. This leads us to the subject of



Store of J. E. Mathews, Corner of Second and G Streets
 Store of A. C. Dauphiny & Co., Corner of Second and E Streets

The Metropole, Corner of Second and D Streets and
 Store Building, Corner of Fifth and A Streets, Just Completed for A. Abrahamson



DALY BROS.' ARCADE STORE (Corner Fourth and F Streets)

The Glove and Shirt Waist Department
The Notion and Fancy Goods Department

Hosiery and Muslin Underwear Department
The Domestics and Dress Goods Department



The Reading Room

THE HUMBOLDT CLUB, EUREKA

The Billiard Room

WILD FRUITS.

which are numerous in all the brushy sections near the coast line. Blackberries are abundant and prompt to take root, especially in the clearings where timber has been cut. In quality they are probably the finest that grow in this State. Large quantities are preserved for local use, being generally conceded as superior to the cultivated berry for this purpose.

Huckleberries and other wild fruits grow to perfection in the sheltered regions. In the mountain districts wild raspberries are found. Hazlenuts are abundant, and where the oak grows and the pepperwood, acorns and nuts yield excellent food for hog culture.

NURSERIES.

To supply the local demand of fruit trees in Humboldt County, nurseries were set out a number of years ago and with limited exceptions they furnish the entire home demand. With one exception they are all located in Eel River valley. In the remoter districts a few orchardists have prepared themselves to supply the neighboring demand for the staple varieties, and in most cases these can be relied upon as being healthy stock, entirely free from infection. Based on their estimated output the following list represents the aggregate of settings up to this period:

Number of apple trees	225,000
" " pear	12,000
" " peach	75,000
" " cherry	12,000
" " prune	160,000
" " apricot	7,500
" " quince	2,500
" " berry stock	60,000

A review of the subject fully justifies the promise of a bright future for the fruit industry of Humboldt County. This applies more particularly to the apple, which still ranks as the leading fruit both in America and Europe. In the latter country the demand for Pacific Coast apples has been steadily increasing, and Humboldt County has every reason to calculate on having the reputation of its apples command a large portion of this business in the future.

In the sections referred to not lying in the dairy regions, lands are obtainable at comparatively low prices. Orchards set out in carefully located spots would come into bearing at a time when transportation facilities gave promise of being greatly improved, insuring profitable results wherever care and attention are not lacking. More extended railroad communication is certain to follow—in fact is now under way. Extensive investment in enterprises of this class will undoubtedly result, thereby hastening the time when Humboldt County's fruit products will attain commercial importance beyond the most sanguine expectations now entertained.

VEGETABLES

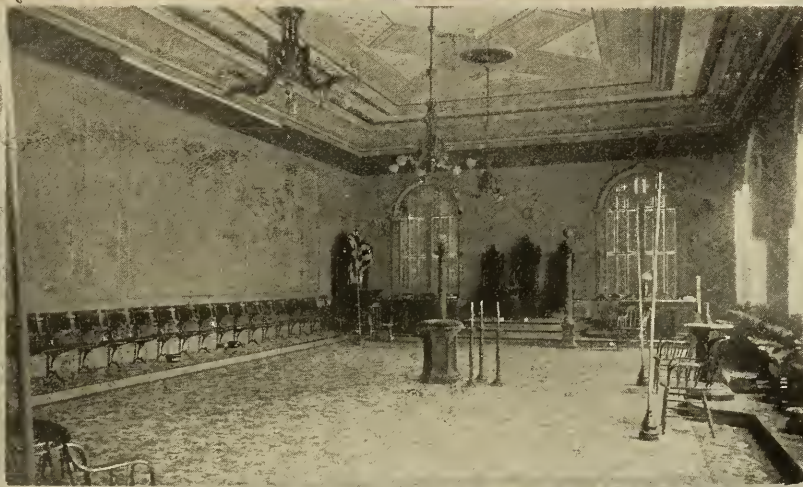


WITH few exceptions everything classed under the head of vegetables grows to perfection in Humboldt County. This includes cabbage, bulbous and root products, which in some sections attain remarkable size. The yield is good. Plentiful rainfall insures sufficient moisture in all cases, and while weather conditions do not admit of early maturing, the quality surpasses that imported during the early season. Peas and corn mature earliest in the

Pepperwood section on Eel River, which furnishes the largest supply for the home market. The same applies to tomatoes which require no irrigation and reach a high standard of quality. In the nearby sections fall gardens have been on the increase and insure a constant lessening of demand for outside products in this line. Beans do well in the lowlands and the growth of onions is very thrifty, but as yet are produced only in limited quantities. Melons and canteloupes of all varieties do well on the porous soil lying in the warmer belts, but



Pythian Castle

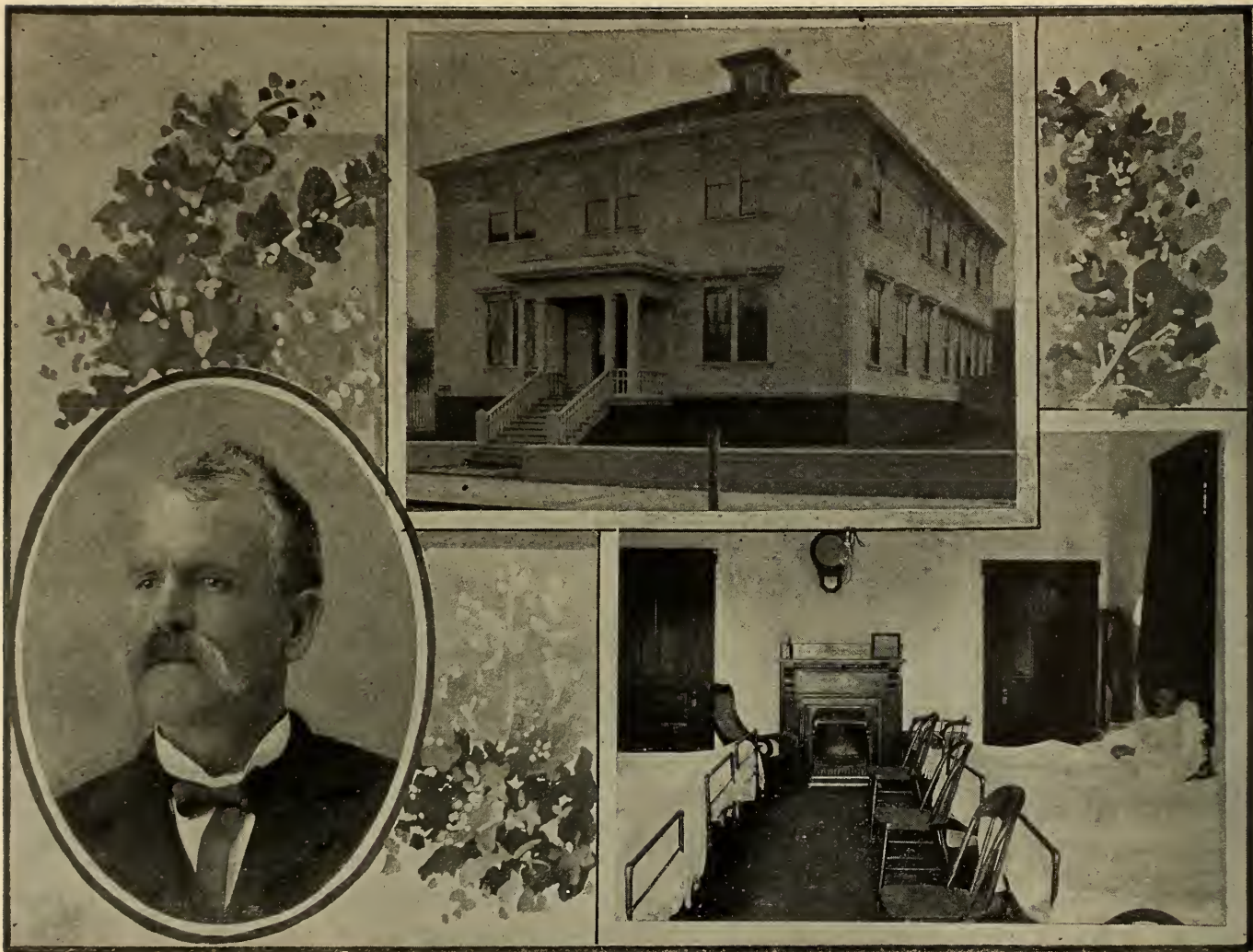


Interior of Masonic Hall



Odd Fellows' Building

SOME LODGE BUILDINGS OF EUREKA



J. G. Murray, Proprietor

THE HUMBOLDT GENERAL HOSPITAL, EUREKA
The Hospital Building

One of the Wards


owing to difficulty of transportation, only nearby points are as yet being supplied.

Potatoes grow to perfection in all the lowland sections and once constituted the most important item of agricultural exports. Since then a large portion of these lands have been found more profitable for dairying purposes, but extensive areas still remain open to their culture. Owing to the abun-

dant rainfall the planting season begins late, but insures a healthy growth, and the late keeping quality usually leads to increased returns.

Many opportunities exist for extending the growth of these products, and with increasing population will insure a demand, affording new settlers with limited means an opportunity to obtain a foothold.

TRAVEL AND COMMUNICATION

HE broad Pacific is before us—a thoroughfare which admits of no restrictions, no tolls. By this route the commerce of the County is carried on. By this route also most of the incoming and outgoing travel is conducted—a matter of some thirty thousand people each year. In this trade, a dozen or more steamers are constantly employed, besides the large fleet of sailing vessels which transport the vast lumber output of the county. The steamers also perform the most important part of our mail service with the outside world, mitigating, to some extent, the lack of railroad communication.

There are two steamship lines plying regularly between Eureka and San Francisco to accommodate the passenger and freight business. Besides these, a number of staunch, well-equipped steam schooners, with limited passenger accommodations, but designed chiefly for lumber carriers, make from two to four trips each month. By these means, the traveler may come and go with almost as much certainty as he could by rail. But the locomotive is coming also—a few months at the most will find “the overland” train speeding through our valleys and tickling the vanity of our long-waiting people.

As stated in the lumber article in this publication, the great need for the perfect and full development of the resources of Humboldt, is rail connection with the outside world. This has been the hope of our people for many years, and many an effort has been put forth to secure it. That hope has now become a certainty, thanks to the Santa Fe railroad. Something over a year ago, that great corporation sent its

representatives to this county, and as a result of their investigations, it purchased the Eel River & Eureka Railroad, running from Eureka, thirty miles south; the California & Northern, running from Eureka around the bay to Arcata; and the road of the Pacific Lumber Company, which is an extension southward of the Eel River & Eureka Railroad. The roads were combined in one local system under the name of the San Francisco & Northwestern, and are now being operated as a part of the Santa Fe system, with Captain A. H. Payson, well-known in Humboldt, as President, and B. F. Porter, as General Manager.

Of course, the obtaining of these roads was the first step in the connection of Humboldt Bay by rail with the great system of the Santa Fe, and with characteristic energy, President Ripley set about the task of building a line to carry the products of this county to the overland line to the east. President Ripley himself and other high officials of the Santa Fe made a visit to Humboldt last fall, and the public assurance was then given that the Santa Fe would build the road as fast as money and men could do the work. A number of surveying parties were immediately sent into the field and they have been kept steadily at work, even through the storms of the winter. The line has been laid out, and within the past few days word has come from San Francisco that big construction contracts have been let. Also, that within sixty days the dirt will begin to fly, and that by the time the heavy rains set in this fall a good portion of the road will be completed. The rails for many miles are already on

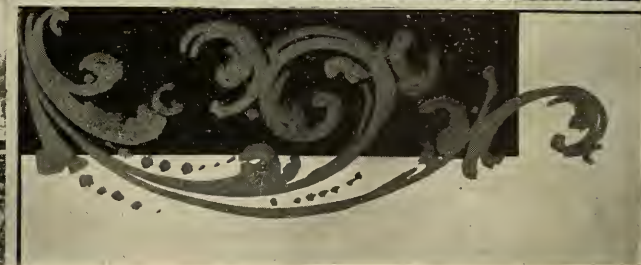
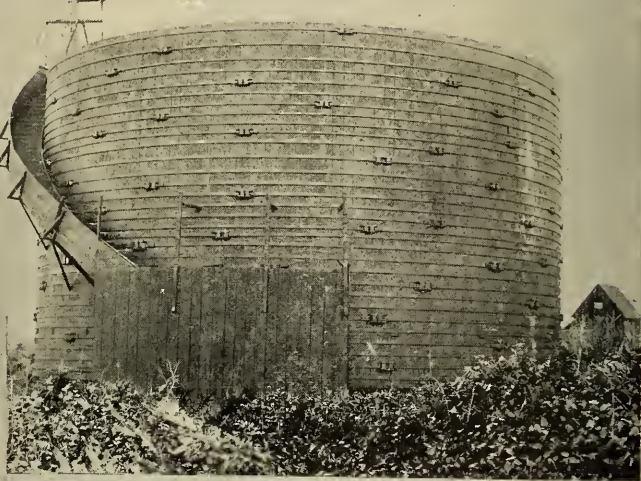


NEW RUSS BUILDING ON THIRD STREET, EUREKA

On the Upper Floor are the Rooms of the Humboldt Club; the Ground Floor is Occupied by the Offices of the Redwood Land and Investment Company, and Belcher & Crane Abstract Company



FIRE DEPARTMENT HOUSES, EUREKA

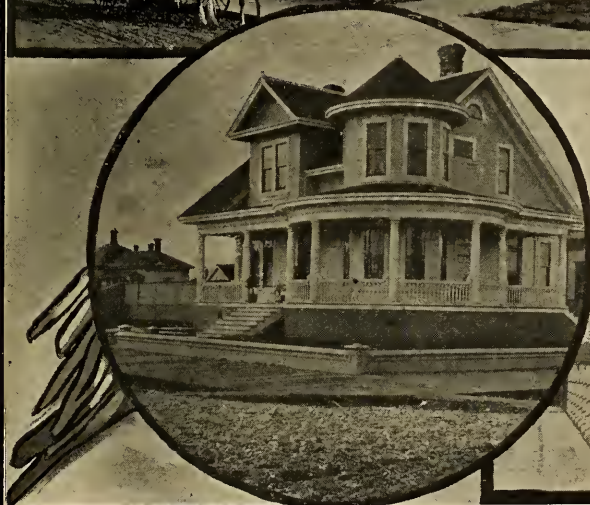


THE EUREKA WATER WORKS

The Intake on Elk River

The Pumping Station

The Storage Tank, the Largest Wooden Tank in the World



Residence of Dr. F. H. Ottmer, Eureka
 Residence of District Attorney Otto C. Gregor, Eureka

Residence of E. B. Jackson, Arcata

the wharves here, the contracts have been let for the ties, and everything is in readiness for a speedy prosecution of the enterprise that means so much to this county.

Incidentally, the building of this line will open up the southern end of the county, giving an outlet to the fruit products of the South Fork of Eel River. This section is peculiarly adapted to horticulture, growing, as it does, probably the finest flavored peaches in the State. Transportation facilities



CHRIST (EPISCOPAL) CHURCH, EUREKA

will lead to thousands of acres of land, now used as sheep and cattle ranges, being turned to the production of fruit.

Apropos of the railroad situation, it may be stated that there have also been rumors that the Southern Pacific would build down into Humboldt from the north, but no authoritative announcement as to this plan has been given out. It is also stated that the Southern Pacific has gained control of the California Northwestern, running from San Francisco Bay to Wil-

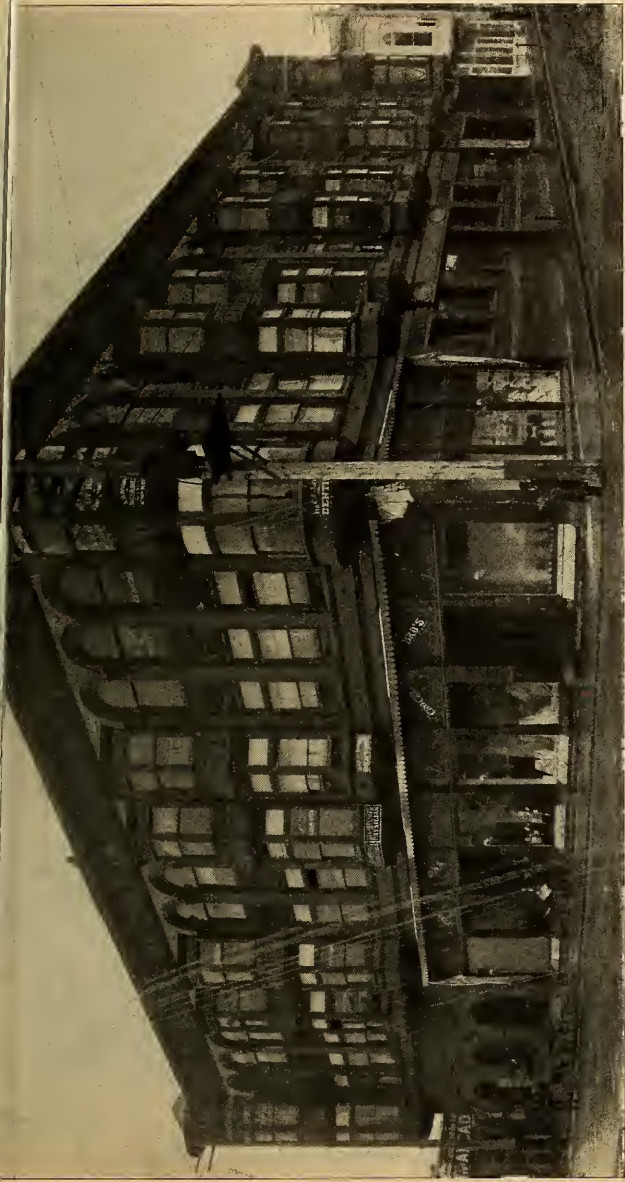
lets, in Mendocino County, and intends extending the line from that point to Humboldt Bay; but similarly in this case, no positive announcement has been made.

The means of internal travel and communication are well provided for. In this respect, Humboldt is better equipped than some of the older and much-advertised counties of the State. There are at present eleven distinct railroads in operation in the county, ranging from nine or ten to thirty miles in length. They center at Eureka, either directly or by connection, and will eventually make a splendid network of roads for the benefit of the entire County. Five of the companies are extending their roads, tapping new territory and opening lands hitherto denied participation in the general prosperity of the county. These extensions and improvements will necessitate the building of new wagon roads in various directions and the improvement of some already in use. This work the County will assume, for even the remote sections must have means of safe and easy communication with business centers.

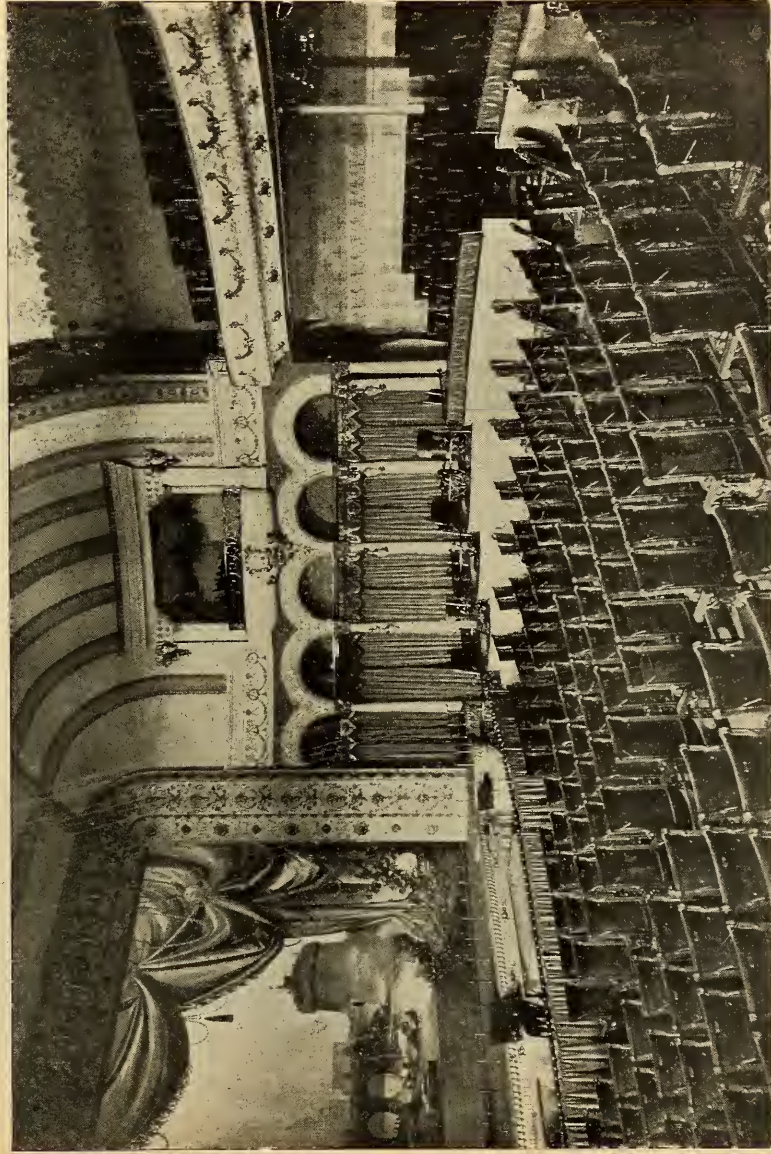
There are at present something like six hundred miles of wagon roads within the limits of the county. These roads furnish a means of travel to all important sections, traversing mainly the settled and cultivated portions, but including in a general way the mining and grazing sections as well. One road runs along the coast to the Klamath River on the north, and thence by way of Crescent City into the Willamette valley in Oregon. Another runs northeasterly from Humboldt Bay across the County to the Trinity River. A southerly branch of this road follows up Mad River to within twenty miles of the County line on the east. Twenty miles to the south another road runs east to the County line, where it is to connect with the road from Trinity County, now in course of construction. This is designed to bring trade and travel from the mountains of the interior and from the Sacramento Valley.

Three roads cross the southern boundary and run down into Mendocino County, where they connect with the general wagon road system of the State. All of these roads send off lateral branches where settlement has made it necessary, and others will follow when the demand arises.

Over all these roads, and over many well-travelled trails, the mail contractor finds his way to the fifty or sixty postoffices of the county, thirty-five of which have a daily mail service.



THE CARSON BLO_K. (In this Building is the Ing mar Theatre).



INTERIOR OF THE INCOMAR THEATRE



THE WESTERN HOTEL, Corner First and D Streets, Eureka



MCNAMARA'S STORE (Corner Second and F Streets, Eureka)



THE FASHION STABLES. RICHARD SWEASEY, PROPRIETOR. (Corner of Fourth and G Streets, Eureka).

Twenty-four are money-order and five international money-order offices. Hotels and resting places are found on all lines, and travel is safe and comfortable. Add to this the fact that the telegraph, telephone and express companies maintain excellent service in all directions and it will be seen that Humboldt

even on the surf-washed sands of the sea beach, run these Humboldt wagon roads—broad, smooth, well made and serviceable, opening the way to homes and harvest fields of the future.

Passenger travel on the steamers for the past six years is shown as follows:



INTERIOR OF THE CATHOLIC CHURCH, EUREKA

has a just claim on the attention of the home-seeker, the investor, the tourist and sightseer—all of those who enjoy the thrill and pleasure of hunting out the natural wonders of this marvelous new land. Through the mightiest forest land on earth; over mountains five thousand feet in height; through beautiful broad valleys; narrow canyons and rocky gulches;

Year	Arriving	Leaving	Gain	Passenger Earnings	Freight Earnings
1898	6159	6087	72	\$ 81,645	\$ 825,004
1899	6918	6440	478	122,463	847,005
1900	8368	7988	380	149,057	810,528
1901	9922	8907	1015	171,343	1,170,397
1902	11,874	10,313	1561	201,902	1,305,592
1903	16,274	12,631	3643	263,036	1,739,764



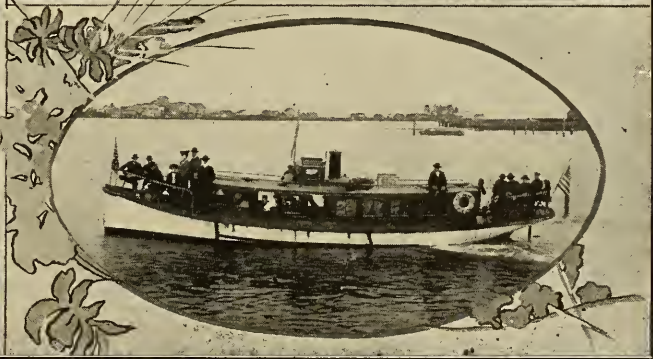
Interior and Exterior Views of Jewelry Store of S. F. Hollander, 407 Second Street, Eureka

The Revere House, Kramer Bros., Proprietors
 Corner First and E Sts., Eureka

Harness Store, Saddlery and Carriage Repository of Henry R. Bruhns,
 426 Second St., Eureka



Grocery Store of J. S. Dinsmore, Corner Clark and E Streets, Eureka, Across E Street from the High School Building



SOME EUREKA BUSINESS HOUSES

Skinner-Duprey Drug Company and Wilson Rooming House, Corner Third and F, Eureka. The Jewelry Store of C. H. Wright, 209 F St., Eureka.
 Walter Kildale's Preparatory School, 425 Third Street, Eureka. A Launch of the Coggeshall Line, Running Between Eureka and Samoa

The amount of shipping done in this port, and its character, may be judged from the following comparative table,

Year	Arrivals	Departures	Total Tonnage Arriving	Total Tonnage Departing	Arrivals Domestic Ports
1898	543	558	208,946	201,005	529
1899	645	655	262,314	265,055	625
1900	583	586	238,419	239,769	550
1901	692	696	283,028	284,664	654
1902	707	695	298,167	289,776	687
1903	749	759	355,775	360,525	730

covering six years and compiled from the annual reports of the Board of Harbor Commissioners:

Arrivals Foreign Ports	Departures Domestic Ports	Departures Foreign Ports	Arrivals Steam	Arrivals Sail	Departures Steam	Departures Sail
14	528	30	343	200	338	220
20	612	43	434	211	432	233
33	534	52	414	169	419	167
38	639	57	509	183	510	186
20	668	27	510	197	509	186
19	719	40	575	174	579	180

TRADE AND COMMERCE

IN THE matter of trade and commerce, Humboldt has a record to be envied by counties of far greater population. The volume of trade is large, considering population, and the balance of trade is heavily in our favor. We have only to point to the statistics of the year 1903. The volume of trade, exports and imports, amounted to nearly twelve million dollars. The balance of trade in our favor was nearly three million dollars. As the County has a population of about

30,000, that means \$100 in balance of trade for every man, woman and child of Humboldt.

The details of Humboldt's business are given in the annual report of the Board of Harbor Commissioners. The figures are official, being gathered every month by the secretary of the Board. The figures given, do not, of course, include the products used within the county. The figures given in the report for the year 1903 are as follows

FROM FOREIGN PORTS.

Sydney, Australia	3
Melbourne, Australia	1
Newcastle, Australia	1
Topolobampo, Mexico	3
Mazatlan, Mexico	1
Santa Rosalia, Mexico	1
Guaymas, Mexico	1
Acapulco, Mexico	1
Callao, Peru	2
Pisco Bay, Peru	1
Shanghai, China	1
Samoa Islands	1
Fiji Islands	1
Tahiti Islands	1

Total Arrivals, Foreign Ports..... 19

Total Arrivals from all Ports.....749

Total Arrivals during 1903.....749

Total Arrivals during 1902.....707

Gain over last year..... 42

(NOTE—The tonnage of the vessels that traded between Humboldt Bay and other ports during the year 1903 was larger than ever before. This was so, in particular, as to the vessels that carried lumber cargoes to foreign ports from this bay. These vessels averaged over 902 tons, register net tonnage, carrying cargoes averaging 730,963 board feet of redwood lumber, and valued per average cargo at \$17,720. A number of them that sailed foreign averaged 1,100 net tons. Some of these vessels drew, as loaded here, over

twenty-one feet and six inches. See foot of report for list of vessels sailing foreign, their nationality, with the size of each and its cargo.)

ARRIVALS.

Steam vessels	575
Sail vessels	174

Total749

Tonnage355,775

FROM DOMESTIC PORTS.

San Francisco	590
San Pedro	65
San Diego	13
Portland	24
Los Medanos	1



Plant of the Eureka Foundry Company, at the Foot of S Street, in the East End, Eureka



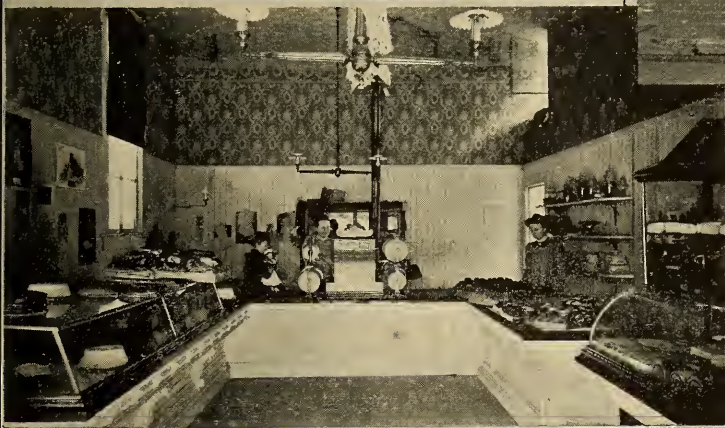
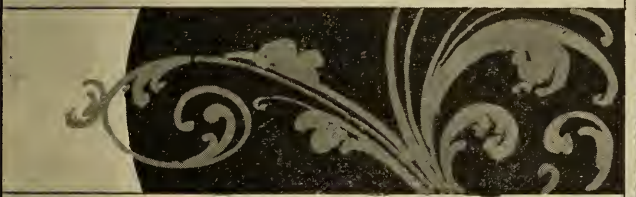
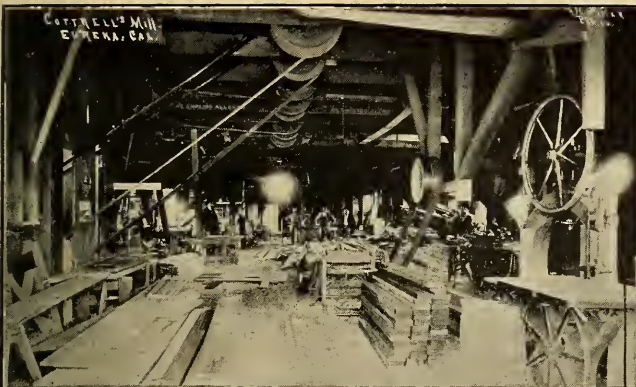
Interior of C Street Plant of the Eureka Lighting Company

General Store of Dickson & Dickson, Loleta

The Masonic Building at Arcata

Whipple Street Plant of the Eureka Lighting Company

C Street Plant of the Eureka Lighting Company



Moulding and Planing Mill of J. A. Cottrell, Corner Third and B Streets, Eureka.
The Log Cabin Bakery, I. S. Mulford, Proprietor, 621 Fifth Street, Eureka.

Furniture House of Ruscoe & Lundblade,
415 Second Street, Eureka.

Redondo	4
Tillamook	6
Coquille River	1
Coos Bay	1
Umpqua	4
Gardner City	1
Hardy Creek	2

Total Arrivals, Domestic Ports.....712

FROM ISLAND AMERICA.

(Hawaiian and Philippine Islands)

Honolulu	14
Hilo	2
Kahului	1
Manila	1

Total Arrivals, Island America..... 18

DEPARTURES.

Steam vessels	579
Sail vessels	180

Total759

Tonnage360,525

Total vessels arriving and departing.. 1,508

Total tonnage arriving and departing..716,300

TO DOMESTIC PORTS.

San Francisco	432
San Pedro	144
San Diego	14
Portland	39
Los Medanos	39
Redondo	17
Ventura	1
Seattle	3
Crescent City	1
Grays Harbor	12
Antioch	1
Santa Barbara	1
Trinidad	2

Total Departures, Domestic Ports...706

TO ISLAND AMERICA.

(Hawaiian and Philippine Islands)

Honolulu	8
Hilo	2
Kahului	2
Manila	1

Total Departures, Island America... 13

TO FOREIGN PORTS.

Sydney, Australia	13
Melbourne, Australia	6
Freemantle, Australia	2
Launceston, Tasmania	1
Lyttleton, New Zealand	1
Topolobampo, Mexico	6
Guaymas, Mexico	1
La Paz, Mexico	1
Liverpool, England	3
Glasgow, Scotland	2
Queenstown, Ireland	2
Delagoa Bay, South Africa	2

Total Departures, Foreign Ports.. 49

Total Departures to all Ports....759

Total vessels arriving and departing, 1903.. 1,508

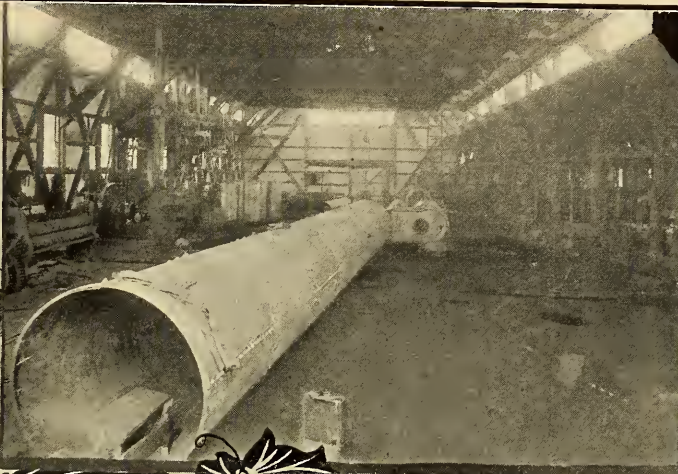
Total vessels arriving and departing, 1902.. 1,402

Gain over year 1902..... 106

Total tonnage arriving and departing
for 1903716,300

Total tonnage arriving and departing
for 1902587,943

Gain over year 1902.....128,357



Eureka Boiler Works, Langford Bros., Proprietors, on T Street, East End, Eureka

Monroe Bottling Works, Whipple Street, Eureka

Store of A. Cottrell, Corner Fifth and H Streets, Eureka

LUMBER SHIPMENTS FOR PAST SIX YEARS. (Comparative Tables)

The following tables show the steady increase of the lumber shipments from Humboldt Bay during the past six years, both to domestic ports and to foreign ports.

TO COAST PORTS.

Calendar Year	No. Cargoes	*Total Board Ft.	Total Value.
1898	528	112,261,934	\$ 1,228,982
1899	612	141,974,487	1,913,755
1900	534	131,426,011	1,651,798
1901	639	179,332,871	2,918,352
1902	650	185,670,382	2,993,212
1903	706	229,698,187	3,845,306
Coast totals for six years	3,669	980,363,872	\$14,251,405

TO FOREIGN AND NON-CONTIGUOUS PORTS.

Calendar Year.	No. of Cargoes.	Total Board Ft.	Total Value
1898	30	10,744,091	\$ 144,616
1899	43	14,926,711	191,023
1900	52	17,525,922	238,667
1901	57	25,942,327	388,786
1902	44	24,758,874	469,421
1903	53	34,309,594	801,304
Foreign and Island six years.....	279	128,207,519	\$2,233,817

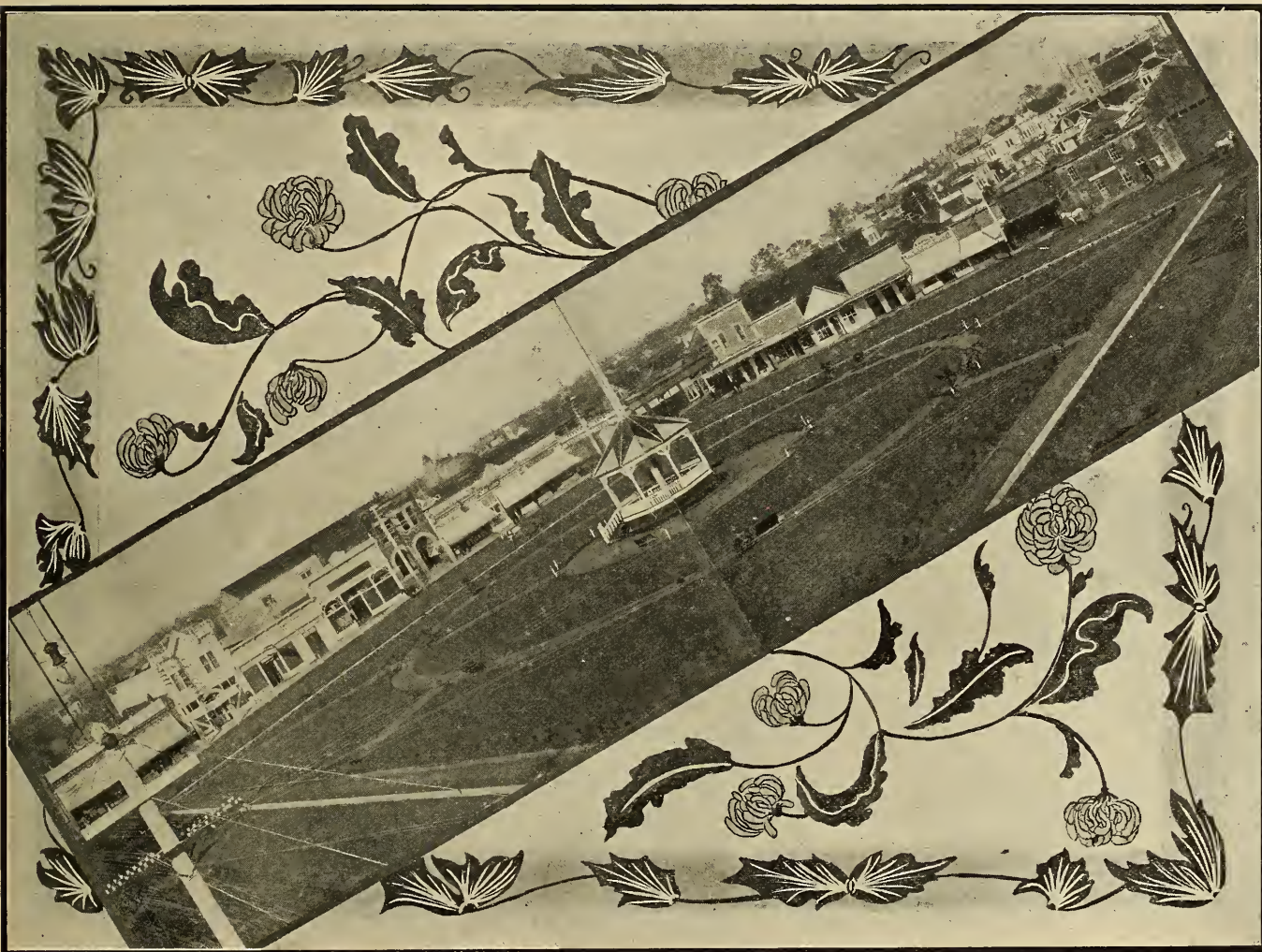
Recapitulation

TO ALL PORTS.

Calendar Year.	(Domestic, Island and Foreign) No. of Cargoes.	Total Board Ft.	Total Value
1898	558	123,006,025	\$ 1,373,598
1899	655	156,901,198	2,104,778
1900	586	148,951,933	1,890,465
1901	696	205,275,198	3,007,138
1902	694	210,429,256	3,462,633
1903	759	264,007,781	4,646,610
Totals, all Ports, 6 years	3,948	1,108,571,391	\$16,455,222

*The column "Total Board Feet" in the above table of yearly shipments to coast ports, includes only the lumber proper, and the shingles and shakes, reduced to board feet, that were shipped to such ports. The railroad ties, pickets, posts, doors, mouldings, sash, and other forest product manufactures that were shipped to coast ports are not included in the above yearly comparative tables, neither is the value of these manufactures. The data not being at hand to determine the amount and value of these items which were shipped coastwise during the years 1898 and 1899, with any reasonable assurance of accuracy, they are omitted from the totals of the latter years in this comparative statement, so as to indicate the true ratio of yearly increase; but all shipments to non-contiguous territory of the United States and to foreign countries being obtainable from the records of the Customs Houses these manufactures are included in the totals of each of the six years to Foreign Ports and Island American Ports.

One reason why the value of the lumber shipment for 1903 is so much greater than for any former year, aside from the fact of the general increase in the amount of the shipment, is because of the very material increase in the amount of high grade clear lumber that was shipped to foreign countries during the year.

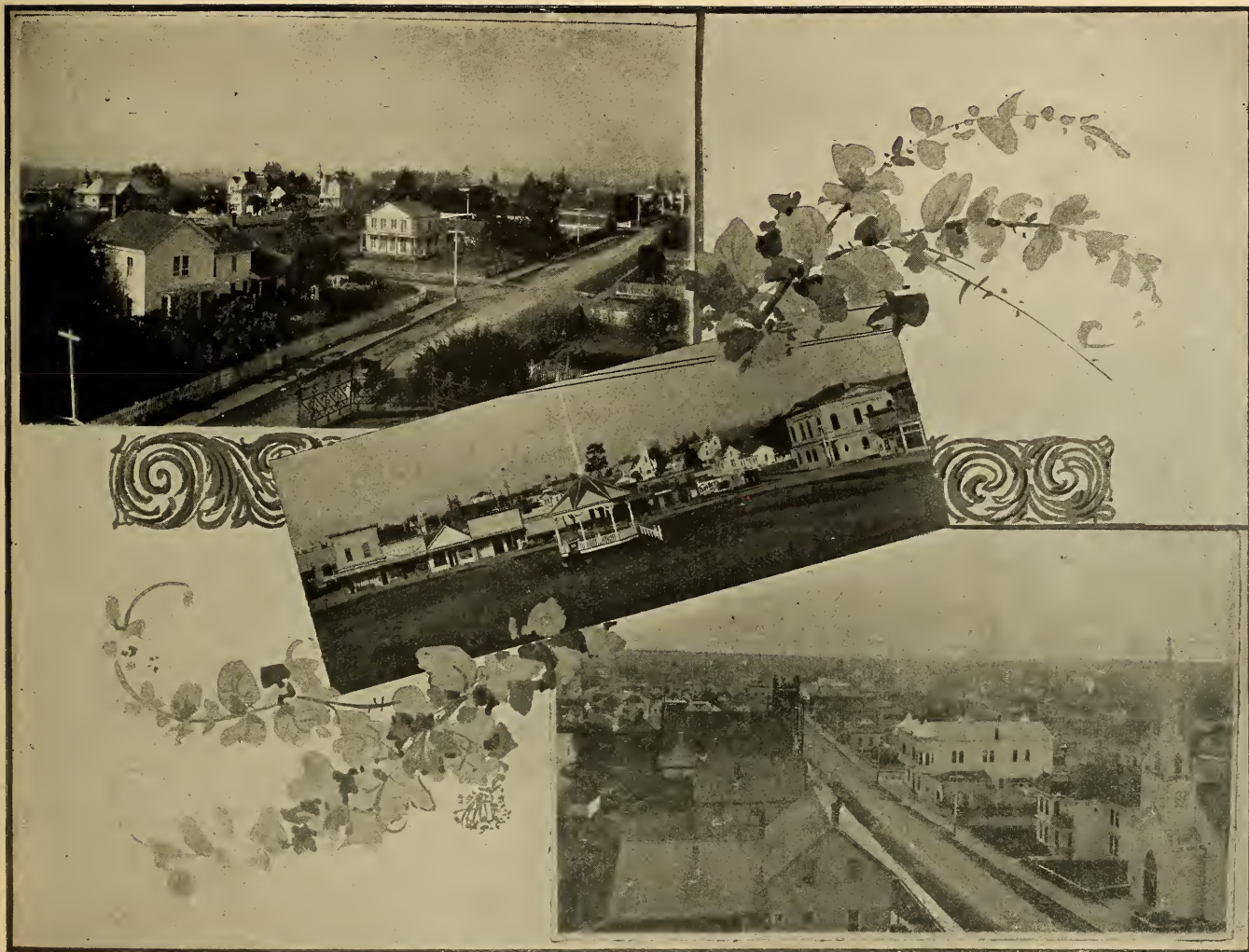


VIEW OF THE PLAZA AND PART OF THE BUSINESS SECTION OF ARCATA



The Bank of Arcata

The Redwood House, a Popular Summer Resort on Redwood Creek, L. C. Berry, Proprietor
Mill of D. K. Minor & Company, Arcata



VIEWS OF ARCATA

FARM AND RANCH PRODUCTS.

Article.	Number.	Pounds.	Value.
Peas, sacks	14,609	1,826,125	\$ 41,088
Potatoes, sacks	7,917	980,625	9,806
Lentils, sacks	244	30,500	1,525
Eggs, cases	180	10,800	1,350
Wool, sacks and bales	3,459	665,700	117,523
Totals		3,522,750	\$ 171,382

ORCHARD PRODUCTS.

Article.	Number.	Pounds.	Value.
Green Apples, boxes	98,417	5,412,935	\$ 88,575
Dried Peaches, boxes	90	3,600	270
Apple Butter, cases	22	440	62
Cider, cases	29	1,450	49
Cider, barrels	188	47,000	1,598
Totals		5,465,425	\$ 90,554

FISH AND GAME.

Article.	Number.	Pounds.	Value.
Fish, fresh salmon, cases	6,226	2,490,400	\$ 62,260
Fish, salt salmon, barrels	58	17,400	870
Frogs, cases	70	2,100	350
Crabs, sacks, two dozen per sack	17,433	1,045,980	24,406
Turtles, sacks	12	480	48
Totals		3,556,360	\$ 87,934

MISCELLANEOUS.

Article.	Tons.	Value.
General Merchandise	6,096	\$ 304,800
Woolen and Flannel Goods, pounds		150,000
Mohair, bales	1,450	1,120
Miscellaneous Merchandise		29,000
Total Value Miscellaneous		\$ 484,920

Total All Products

LUMBER AND MANUFACTURES.

29,238,515 feet of lumber and kindred manufactures, shipped Foreign	\$ 708,807
5,071,079 feet of lumber and kindred manufactures, to Island America	92,497
237,774,382 feet of lumber and kindred manufactures, shipped Coastwise	4,002,612
272,083,976 feet. Value	\$4,803,916

OTHER MANUFACTURES AND PRODUCTS.

2,912 tons of animal products, valued at	\$ 446,806
2,980 tons of dairy products, valued at	1,275,858
1,761 tons of farm and ranch products, valued at	171,382
2,733 tons of orchard products, valued at	90,554
1,778 tons of fish and game, valued at	87,934
7,635 tons of miscellaneous products, valued at	484,920

19,799 tons. Value	\$2,557,454
Value of total exports, all products and manufactures, for year 1903	\$7,361,370
Value of total exports, all products and manufactures, for year 1902	6,250,359

Increase in value of Exports for the year 1903 over the year 1902

\$1,111,011



ARCATA FROM THE HILL, LOOKING TOWARDS THE BAY



School Building, Arcata

Residence of Ex-Assemblyman M. P. Roberts, Arcata

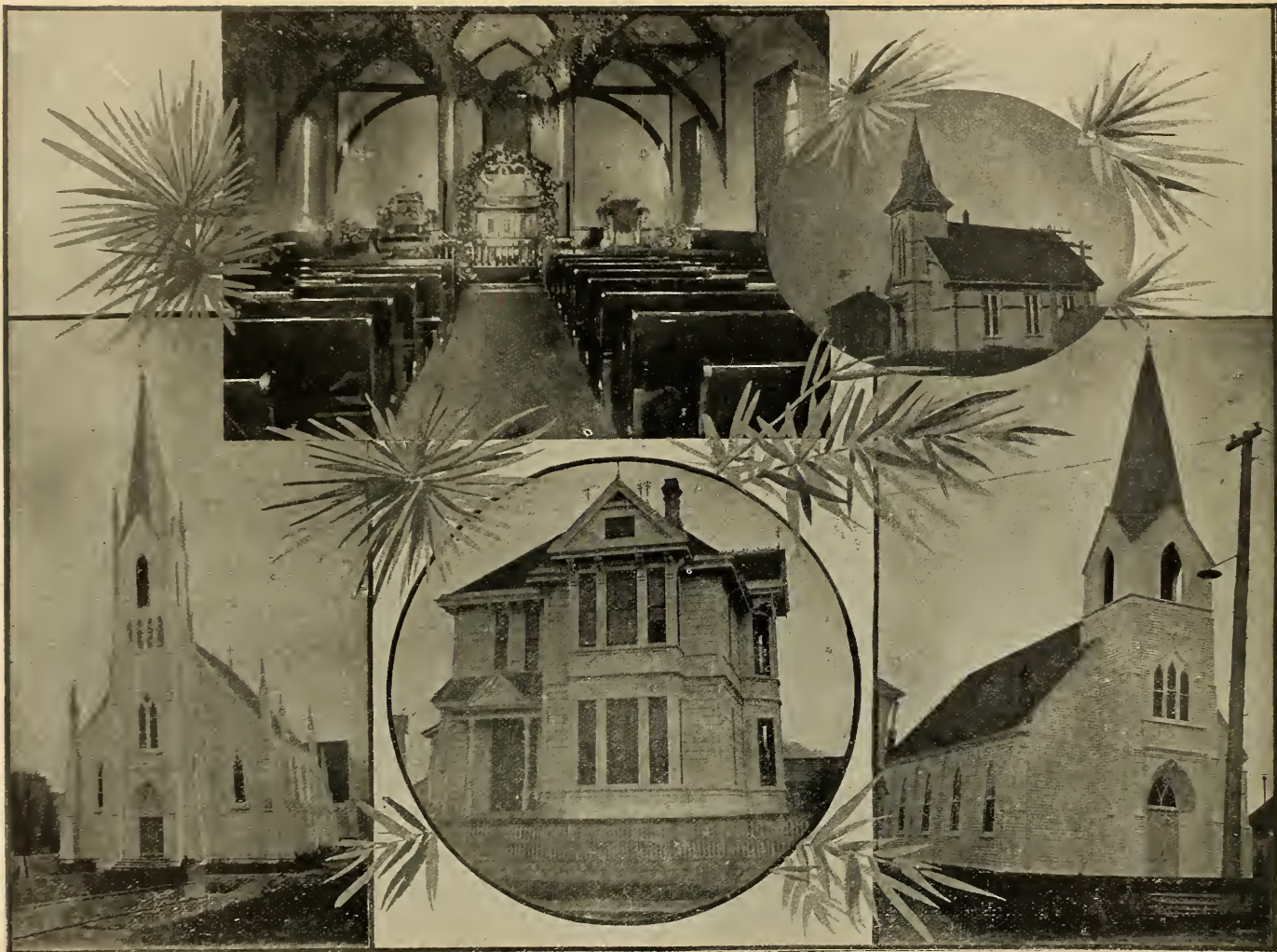
Residence of A. Brizard, Arcata



Home of Thomas Bair

SOME ARCATA RESIDENCES
Home of N. H. Folk

Home of I. Culberg



Interior of Episcopal Chapel, Ferndale
Catholic Church and Priest House, Ferndale

Congregational Church, Ferndale
Danish Lutheran Church, Ferndale



View of Fortuna

View of Ferndale

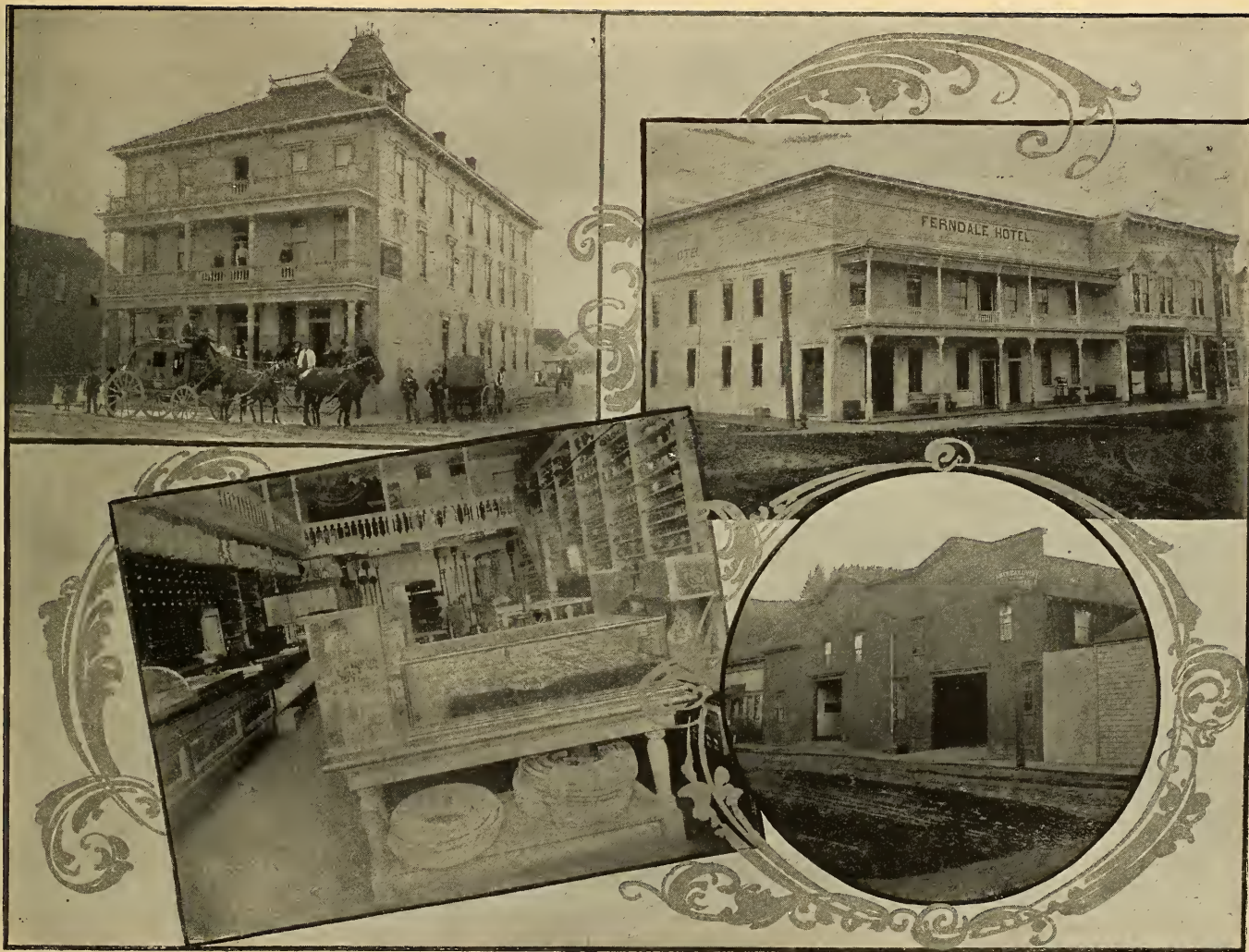
Fleet Sailing Foreign, 1903

Following is a list of the vessels that sailed to foreign ports proper, direct from the bay for the year 1903, with the cargo and destination of each:

Date of Departure	Nationality and Rig	Name of Vessel	Destination of Vessel	Net Tonnage	Total B'd Feet	Total Value
Jan. 5	Am. Ship	Ivy	Freemantle, Aus.....	1181	680,172	\$ 17,004
Jan. 7	Am. Stmr	Meteor	Topolobampo, Mex.....	1565	1,656,666	19,092
Jan. 13	Nor. Bark	City of Agra	Melbourne, Aus	908	639,155	15,184
Jan. 18	Br. Bark	Elizabeth Nicholasen	Freemantle, Aus	867	646,690	16,167
Jan. 18	Am. Schr.	S. T. Alexander	Sydney, Aus	695	630,971	11,382
Jan. 23	Br. Bark	West York	Melbourne, Aus	706	448,662	11,662
Jan. 29	Br. Bark	Bessfield	Glasgow, Scotland ..	1292	868,713	19,980
Feb. 19	Nor. Bark	Oxo	Delagoa Bay, Africa ..	736	571,310	15,425
Mar. 6	Br. Bark	Woollahra	Sydney, Aus	942	704,010	17,513
Mar. 10	Am. Stmr	Meteor	Topolobampo, Mex....	1565	1,592,924	19,631
Mar. 22	Ger. Bark	Henny	Delagoa Bay, Africa ..	867	635,240	17,151
May 5	Am. Bark	Sonoma	Sydney, Aus	997	612,757	16,947
May 10	Am. Bktn	Joseph L. Eviston	Sydney, Aus	662	718,262	17,954
May 18	Am. Brig	Geneva	Tasmania	451	460,998	11,502
May 18	Br. Bark	Charles Cotesworth	Liverpool, England....	1031	721,794	17,045
June 7	Am. Schnr	Metha Nelson	Topolobampo, Mex	399	554,464	7,762
June 26	Am. Bark	Mauna Ala	Topolobampo, Mex	779	587,200	7,634
July 10	Br. Bark	Largo Bay	Queenstown, Ireland..	1178	851,687	23,847
July 22	Am. Schnr	Lottie Carson	Guaymas, Mex	244	249,465	7,359
July 23	Am. Bktn	Andromeda	Sydney, Aus	1133	904,146	20,778
July 26	Br. Bark	Pharos	Melbourne, Aus	1227	915,419	24,422
Aug. 11	Br. Bark	Grassmere	Liverpool, England ..	1157	869,079	25,201
Aug. 13	Am. Bark	Yosemite	Sydney, Aus	1040	743,278	21,748
Aug. 24	Ger. Bark	Borossa	Melbourne, Aus	911	716,385	19,272
Sept. 5	Nor. Bark	Tobias	Melbourne, Aus	846	520,361	15,147
Sept. 14	Br. Bark	City of Hankow	Sydney, Aus	1133	962,861	26,809
Sept. 14	Br. Bark	Collingrove	Sydney, Aus	798	536,767	14,423
Sept. 14	Am. Schnr	Americana	Sydney, Aus	839	808,855	24,375
Oct. 1	Nor. Bark	Vivax	Queenstown, Ireland..	1046	689,114	18,540
Oct. 18	Br. Bark	Adderley	Sydney, Aus	1147	953,641	27,521
Nov. 4	Am. Schnr	Metha Nelson	Topolobampo, Mex....	399	550,688	7,710
Nov. 15	Am. Bark	Charles B. Kenney	Sydney, Aus	1014	743,355	21,377
Nov. 17	Br. Bark	Woollahra	Sydney, Aus	942	715,750	20,959
Nov. 17	Nor. Bark	City of Agra	Melbourne, Aus	908	653,376	18,126
Nov. 18	Br. Bark	Amasona	Glasgow, Scotland ..	1373	1,127,713	35,523
Nov. 23	Am. Schnr	Olga	Topolobampo, Mex	444	548,726	7,423
Nov. 28	Am. Schnr	Minnie A. Caine	Sydney, Aus	779	784,664	22,755
Dec. 9	Am. Schnr	Ottillie Fjord	La Paz, Mex	247	285,594	3,978
Dec. 14	Am. Bktn	Benicia	New Zealand	653	643,044	19,613
Dec. 21	Ger. Bark	Atlanta	Liverpool, England....	996	735,459	22,064
Totals (40 cargoes)				36,097	29,238,515	\$708,807

The foregoing forty cargoes consisted of 2,897,000 shingles; 25,000 shakes; 65,467 pickets; 160,985 railroad ties and 23,806,906 board feet of lumber proper.

The average net tonnage of the vessels that sailed foreign from Humboldt Bay for the year 1903 was 902 tons net; the average net tonnage of the same vessels for 1902 was 880 tons; the average value of the foreign cargoes for 1903 was \$17,720 and the average cargo was 730,963 board feet, while the same average for 1902 was 687,091 board feet.



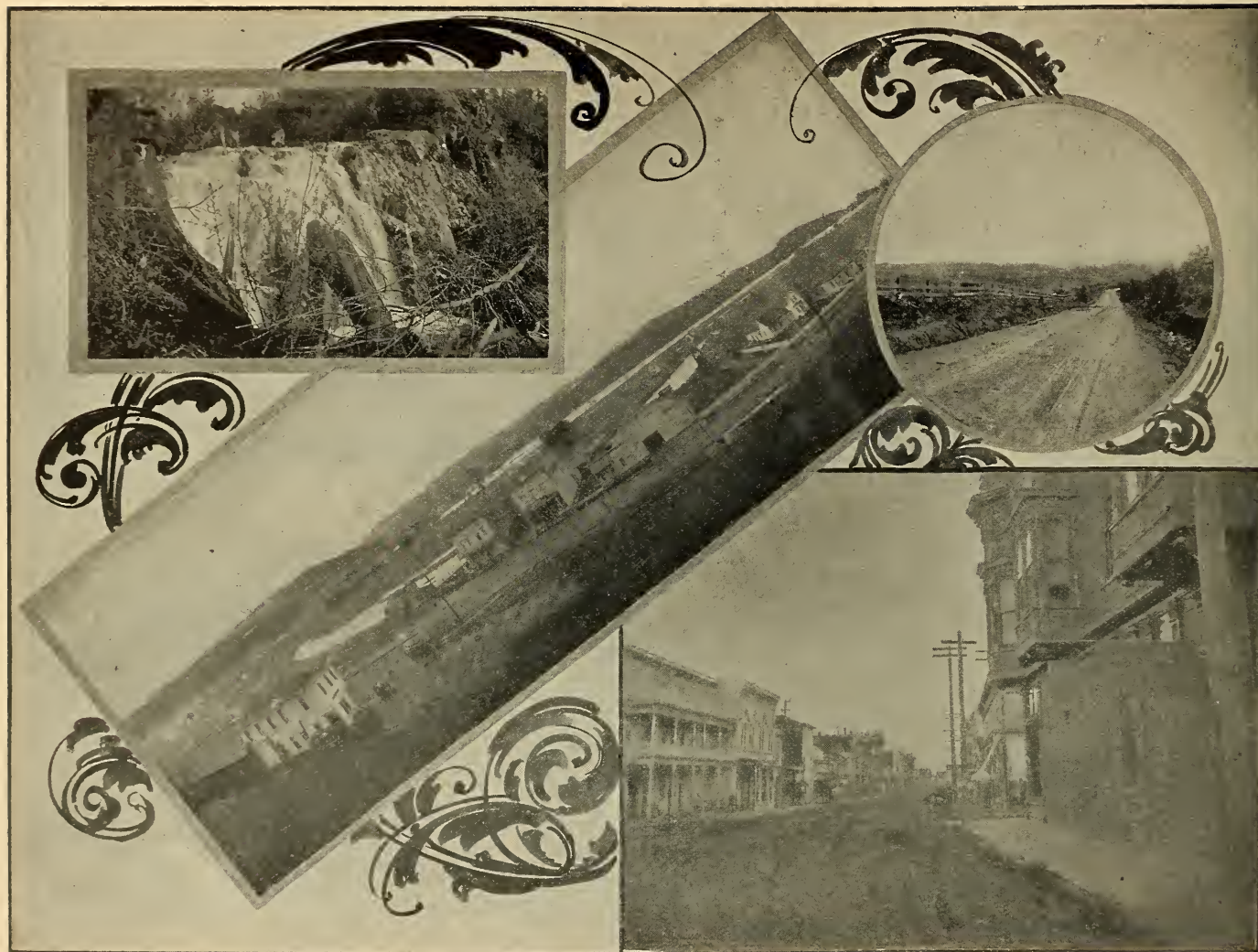
The American Exchange Hotel

FERNDALE BUSINESS HOUSES

Store of Francis Brothers

The Ferndale Hotel

Livery Stable of George M. Brice



Falls Near Dow's Prairie

Alton

Principal Street of Ferndale

Looking Down Towards Loleta



A Street Scene in Fortuna

A View of Fortuna

San Francisco & Northwestern Railroad Depot at Fortuna

IMPORTS.

Article.		Value.
General Merchandise, tons	74,627	\$3,731,350
Railroad Iron, tons	8,560	299,600
Coal, tons (Australian, Wellington, Coos Bay)	5,821	41,546
Hay, tons	4,369	52,428
Wool, pounds, scoured	220,000	77,000
Hides, bundles	5,935	77,155
Horses, head	35	7,090
Cattle, head	265	13,250
Locomotives, number	4	42,000
Railroad Cars, and Electric Cars	58	102,000
Automobiles, number	21	21,000
Miscellaneous Importations, tons	3,261	163,050
Value of total Imports		\$4,627,379

PASSENGERS.

Arriving	16,274
Departing	12,631
Total passengers arriving and departing	28,905
Gain for year, arrivals over departures	3,643
Total passengers arriving and departing for 1902	22,187
Gain in passenger travel—1903 over 1902	6,718

ESTIMATED FREIGHT AND PASSENGER EARNINGS.

Lumber, domestic ports	\$ 915,330
Lumber, foreign ports	437,439
Other Exports	98,995
Import Freight	288,900
Passenger Earnings (incoming and outgoing)	263,036
Total Earnings for year 1903	\$2,002,800
Total Earnings for 1902	1,507,494
Gain of 1903 over 1902	\$ 495,306

SUMMARY.

Total value of all Exportations for the year 1903	\$ 7,361,370
Total value of all Importations for the year 1903	4,627,379
Excess in value of Exports over Imports for the year 1903	\$ 2,733,991
Total value of Exports for the year 1902 was	6,250,359
Total value of Imports for the year 1902 was	3,427,176
Excess in value of Exports over Imports for the year 1902 was	\$ 2,823,183
Excess in value of Exports for the year 1903 over 1902 was	\$ 1,111,011
Excess in value of Imports for the year 1903 over 1902 was	\$ 1,200,203
Total board feet of lumber and kindred manufactures exported for year 1903 ..	272,083,976
Total board feet of lumber and kindred manufactures exported for year 1902 ..	225,931,487
Excess for year 1903 over 1902 was	\$6,152,489
Total number of tons of all other products exported for year 1903 was	19,799
Total number of tons of all other exports for year 1902 was	17,999
Excess for the year 1903 over 1902, tons, was	1,800



Residence of D. S. Newell
Residence of Eli Bagley

IN FORTUNA

Residence of Robert Johnston
Livery Stable of Robert Johnston

Taking the exports and imports for the past six years, made up from various records, we have a comparative statement for that period as follows:

EXPORTS.

Years	1898	1899	1900	1901	1902	1903
Lumber and Forest Products—Feet....	123,006,025	156,901,198	156,814,533	211,005,216	225,931,487	272,083,976
Lumber and Forest Products—Value...	\$1,373,571	\$2,004,778	\$1,983,731	\$3,169,796	\$3,706,768	\$4,803,916
Animal Products—Pounds.....	*	4,731,900	6,921,730	5,733,100	5,814,100	5,824,410
Animal Products—Value.....	*	\$360,017	\$541,258	\$426,141	\$459,720	\$446,806
Dairy Products—Pounds.....	*	5,287,415	5,287,549	5,333,655	5,614,692	5,960,504
Dairy Products—Value.....	*	\$1,096,535	\$1,009,481	\$951,253	\$1,289,385	\$1,275,858
Farm and Ranch Products—Pounds....		4,146,806	3,827,025	4,144,405	3,786,005	3,522,750
Farm and Ranch Products—Value.....		\$276,509	\$279,764	\$271,474	\$185,421	\$171,382
Orchard Products—Pounds.....		2,687,512	3,512,670	3,429,765	3,513,350	5,465,425
Orchard Products—Value.....		\$43,465	\$66,258	\$64,523	\$64,555	\$90,554
Fish and Game—Pounds.....		40,100	427,905	1,213,300	2,360,500	3,556,350
Fish and Game—Value.....		\$ 4,810	\$21,592	\$57,349	\$96,210	\$87,934

*No record.

IMPORTS.

Humboldt's foreign trade has been a feature of the lumber business for many years. Cargoes of redwood find a market in Australia, China, Japan, South America, England, and other places. Following is the record of foreign shipments for the past twenty-two years.

Years	General Merchandise Value	Railroad Iron Value	Coal Value	Hides Value	Hay Value	Miscel. Value
1898	\$1,543,735		\$37,594	\$10,000	\$24,000	
1899	\$1,921,900	\$43,480	18,893			15,165
1900	1,825,315	41,040	3,318	17,876	4,675	3,100
1901	2,239,695	11,400	15,288	50,846	16,390	15,877
1902	3,196,800	17,325	31,271	46,800	32,500	92,480
1903	3,731,350	299,600	41,546	77,155	52,428	425,300

FOREIGN TRADE.

*Tonnage and Nationality of Craft, and Value of Cargoes,
Taken From the Customs House Record.*

Year	American	Foreign	Tonnage	Value of Cargoes	Year	American	Foreign	Tonnage	Value of Cargoes
1882	12	3	3,733.54	\$ 88,270	1893	13	2	5,430.00	101,480
1883	26	13	11,131.82	244,275	1894	16	2	5,903.00	111,251
1884	23	6	9,979.17	203,734	1895	15	1	5,407.00	92,307
1885	17	7	7,998.54	161,901	1896	25	1	8,601.00	141,174
1886	12	11	8,065.57	145,207	1897	29	2	10,872.00	177,366
1887	14	8	6,981.10	121,651	1898	28	3	9,999.00	151,594
1888	8	15	8,731.59	157,736	1899	35	5	14,026.00	192,244
1889	13	1	4,239.00	80,003	1900	45	7	20,835.00	301,855
1890	21	3	7,547.00	141,431	1901	52	5	21,776.00	369,253
1891	28	2	8,718.00	169,438	1902	13	16	26,114.00	356,417
1892	21	3	8,331.22	156,107	1903	19	21	36,097.00	708,807



BLUE LAKE

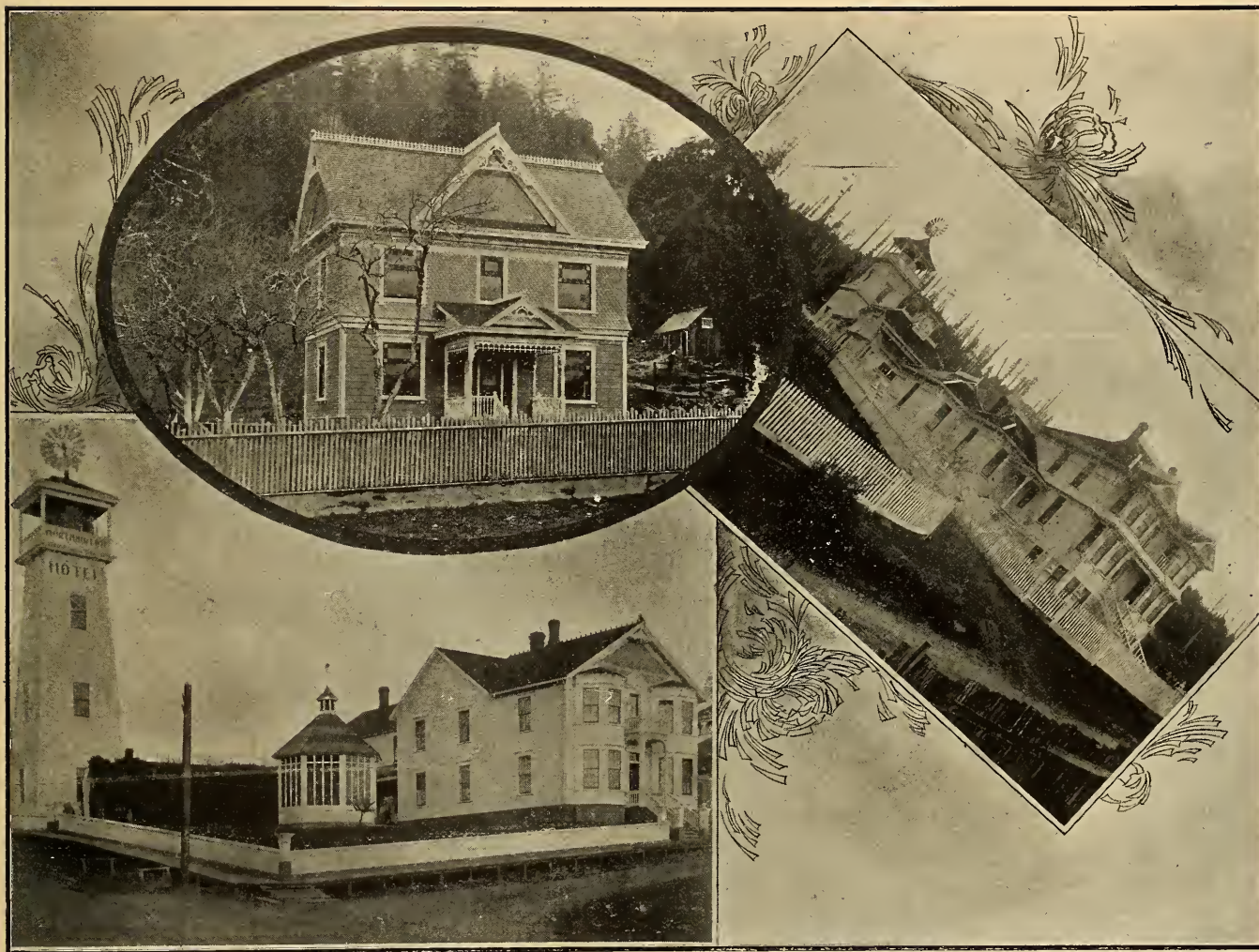


IN BLUE LAKE

Residence of Mrs. Clemence Deschartres

Gus. Perigot, Editor Blue Lake Advocate

Store of August Brand
Residence of August Brand

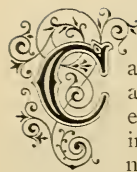


Residence of Sherman Norton
The Worthington Hotel

IN BLUE LAKE

Residence of W. H. Bowersox

A SPORTSMAN'S PARADISE

ERTAINLY exceptional are the opportunities that Humboldt county presents to the sportsman and angler, both as to the varieties of sport offered and the abundance of game and fish. It is the largest of the northern counties of the State, and within its boundaries can be found an infinite variety of magnificent scenery, beautiful surroundings, natural haunts for the outings of the true sportsman. There are rock-ribbed hills, dense forests, wind-swept mountain plains, fens and glades, and in the winter months, snow-covered reaches. There are also countless gentle slopes, fertile bottom lands, creeks, dashing waterfalls, rivulets, and smoothly gliding rivers.

All this varied country teems with the noblest specimens of life that hunter and angler pursue. There are in Humboldt County opportunities second to none on the Pacific Coast for the sportsman with rifle who looks for big game, such as mountain and timber deer, including several species of bear—brown, cinnamon, and black—with a few pioneer grizzlies. Besides these, the smaller fur animals abound in the remoter districts, as also panthers, lynx and others of the cat family. The rivers and creeks afford the angler as fine sport as can be found anywhere in the world,—the steel-head, the lordly salmon, the rainbow trout, the cut-throat trout, the speckled trout, and the grayling abound in the spring-fed mountain streams. Humboldt Bay also affords the angler great sport in trolling for silver salmon in the summer season, and deep-sea fishing for those who enjoy it.

The beach lagoons on the northern coast of the county, especially Big Lagoon, Stone Lagoon, and Freshwater Lagoon are natural pleasure resorts for all Waltonians. Here you find in season, land-locked salmon, steel-head trout, cut-throat trout, and black bass (favorite of the Eastern disciples of the gentle Isaac). Black bass were planted and propagated through the efforts of local sportsmen's clubs.

The marshes contiguous to Humboldt Bay, and the delta

of Eel River are the resort in season of almost every species of water fowl that the gunner may wish to pursue. Here you will find almost every known variety of duck, curlew, plover, the aristocratic Wilson snipe (the prince of game birds), and the different varieties of rail. Humboldt Bay is the home of countless thousands of barnacle brant, a noble game bird.

The County now has two Game Clubs, the Humboldt Fish and Game Club, successors to the Humboldt Sporting and Recreation Society, which has been in existence for many years, and has stood for what is most desirable and just in the way of the protection of fish and game, aside from any mere object of sport and recreation. This club has been a power in moulding the various protective ordinances of the County relating to fish and game, and numbers among its members some of our best citizens and most enthusiastic sportsmen. A younger organization, the Humboldt Sporting Club, with club houses near the marsh adjacent to South Bay and on the Eel River marsh, was formed in 1901. It is also in a flourishing condition, and its members are ready at all times to help the cause of legitimate sport. This club has done much towards the protection of fish and game.

Casting our eyes backwards over the experience of many seasons, the thought presses strongly upon us that nowhere can be found a country that appeals more powerfully to the true lover of sport and nature. Entering the County at its southern boundary on the overland route, you cross the mountains that form the water-shed of the Mattole and Bear Rivers. These rivers and their tributary creeks teem with fish. The higher slopes abound in deer and the lower bushy ridges and glens are the home of countless mountain and valley quail; and on the edges of the higher timber the hoot of the grouse in season is constantly heard, likewise the drumming of the partridge.

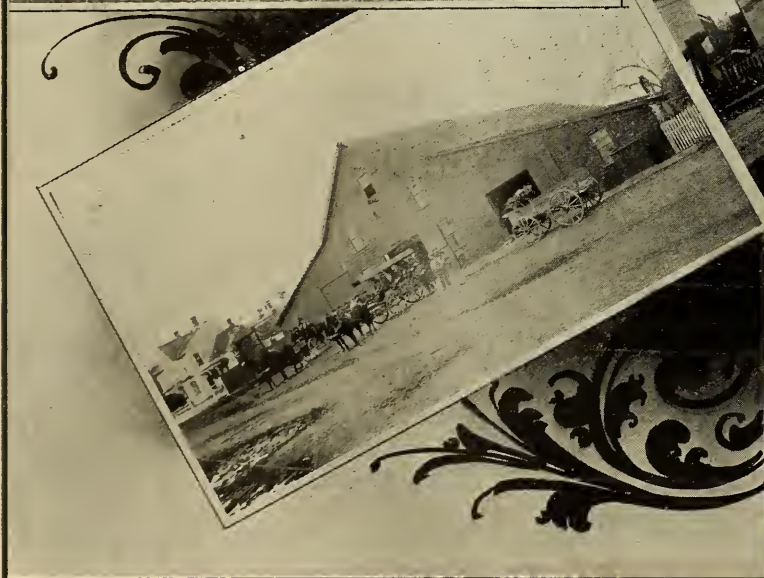
Passing north, you cross Eel River in whose sparkling waters are found a dozen varieties of the salmon family in



Country Residence of John M. Vance, at Carlotta
New Store Building at Carlotta

Dining Room in Eureka Home of John M. Vance

The Eureka Residence of John M. Vance
New Hotel Building at Carlotta



Residence of G. H. Gray
Livery Stable of D. E. Baker

HYDESVILLE

Butcher Shop of John Nelson
The Pioneer Hotel, D. E. Baker, Proprietor



Residence of Rasmus Beck
Residence of Frank Beckwith

HYDESVILLE
Residence of Jasper Anderson


Residence of E. T. Foss
Store of E. T. Foss

countless numbers. Continuing on the northern route, you pass farm, orchard, green clover fields and uplands rich with produce, and skirting the shore of Humboldt Bay, after crossing many streams you come to Mad River. Following the course of this turbulent mountain stream towards its source in the mountain fastnesses, after emerging from the virgin redwood timber, giant specimens of which on all sides have held sway through many hundreds of winter storms, you reach the Eald Hill country, perhaps of all the hunting districts of Humboldt, the favorite outing grounds of our summer campers. Continuing an eastward course on the banks of Mad River, brings you to the confines of Trinity's rock-ribbed hills, where since the days of '49, the creeks and mountain sides have

yielded a golden harvest to the enterprising miner. Through all the expanse of territory here described, it would be difficult, nay impossible, to find a section of land that would not yield its bounteous share of pleasures to the true sportsman, either in the fish or game to be secured, or in the scenic panorama to be presented.

Such is the aspect of Humboldt to one who loves its hills and vales, its virgin wilderness and sun-kissed open reaches, its rivers, creeks, and cataracts, the music of old Pacific's roar upon its sandy beaches, and all that bountiful nature here offers to the true sportsman. Humboldt county is by nature made a "Sportsman's Paradise."

SHIPBUILDING

HIPBUILDING began almost with the settlement of the county. The first need of the argonaut was a roof to shelter him; but coincident with this was the need of some sort of water craft as a quick and safe means of communication with his fellow argonauts of Union (Arcata) and Bucksport. So it happened that the first "ships" built on Humboldt Bay were not ships at all—but small boats, scows, and such craft as the trade and travel of the time warranted.

It is not known just when or where the first craft was built, nor just what it was, nor just who built it; but it must have been during the first few months of the "occupation," for there was boat service between the settlements from the very beginning—indeed, there was no other means of communication. First-comers will sometimes remind each other even yet, of certain incidents of "voyages" made, say to and from Arcata in the good old days. And "voyage" would seem to be a not extravagant term when it is remembered that the trip sometimes meant the greater part of a day and night, counting, of course, the time spent upon the mud flats in the fog, or in the sloughs while waiting for the tide. But the small

boat was only as the thin end of the wedge, and it was not long until more pretentious work was going—vessels of sixty or a hundred tons burden. And in that day, it should be remembered, a hundred ton "ship" with schooner rig was no small affair—it was big enough to count. Many a one of even less tonnage was in commission along the coast, and not a few cargoes of lumber were shipped from here in vessels of that class. But they were as big as the trade, and that was sufficient.

Captain H. D. P. Allen, an old and respected citizen, was a boatman on the bay in those by-gone days. As master of a sloop, and owner of others, he had built up a thrifty business; but believing there were even greater possibilities, he decided to build a steamer. Other parties learning of his purpose brought a fine 35-foot steamer from San Francisco. After making a few trips she was tied up in the slough at Arcata as unsuitable to the trade. Here she capsized and dropped her machinery to the bottom of the slough. Captain Allen soon after put his steamer—the Glide, into service, and ran her for about four years, when the machinery was transferred to a new boat—the Pert—built for him by the Fay



ALLIANCE

Brothers, at Bucksport. Two years later the *Pert* was sold and taken to San Francisco. The *Glide*—the first steam vessel built on Humboldt Bay—was sixty feet long and cost \$7000. The venture was unprofitable, and Captain Allen returned to his first love—the bay schooner. The *Glide* was built in 1854, and she was launched from the foot of I street. The *Pert* was built in 1858. An eye witness of the launching of this last named vessel says she was launched side-ways—probably the only case of the kind in the history of our ship-building.

It is believed the first vessel of a sea-going description was built about 1854 on the peninsula, north of the old Worth place—the present Vance mill property. She was a schooner of perhaps a hundred tons and took a cargo of lumber from the Duff mill. Then followed “ships” of the type of the schooners *Mary Swan*, *Edward Parke*, *Undine* and *Laura Pike*, 150 tons; the *Dashing Wave*, 165 tons, which once made the run from San Francisco to this port in eighteen hours. Later, the *Mary E. Russ*, 200 tons, and “the big ship” the schooner *Compeer*, 350 tons.

So, gradually, the vessels grew in size as the lumber business grew, until today Humboldt is justly proud of the record “big ship” of the coast—the schooner *Crescent*, 1334 tons, launched at the Bendixsen yards on January 2, 1904. There had been built, in the earlier days the barkentine *Western Belle*, 275 tons—lost, on her maiden voyage, with all hands; and the old brig *Hesperian*, from which Captain Wilkinson was lost. This was one of the best-known vessels on the coast. She was built by E. & H. Cousins in the sixties. The barkentine *Uncle John* was built for John Vance in 1881, and was launched from the foot of E street, where the Baird wharf and warehouses now are. She was lost six years ago on Vancouver Island.

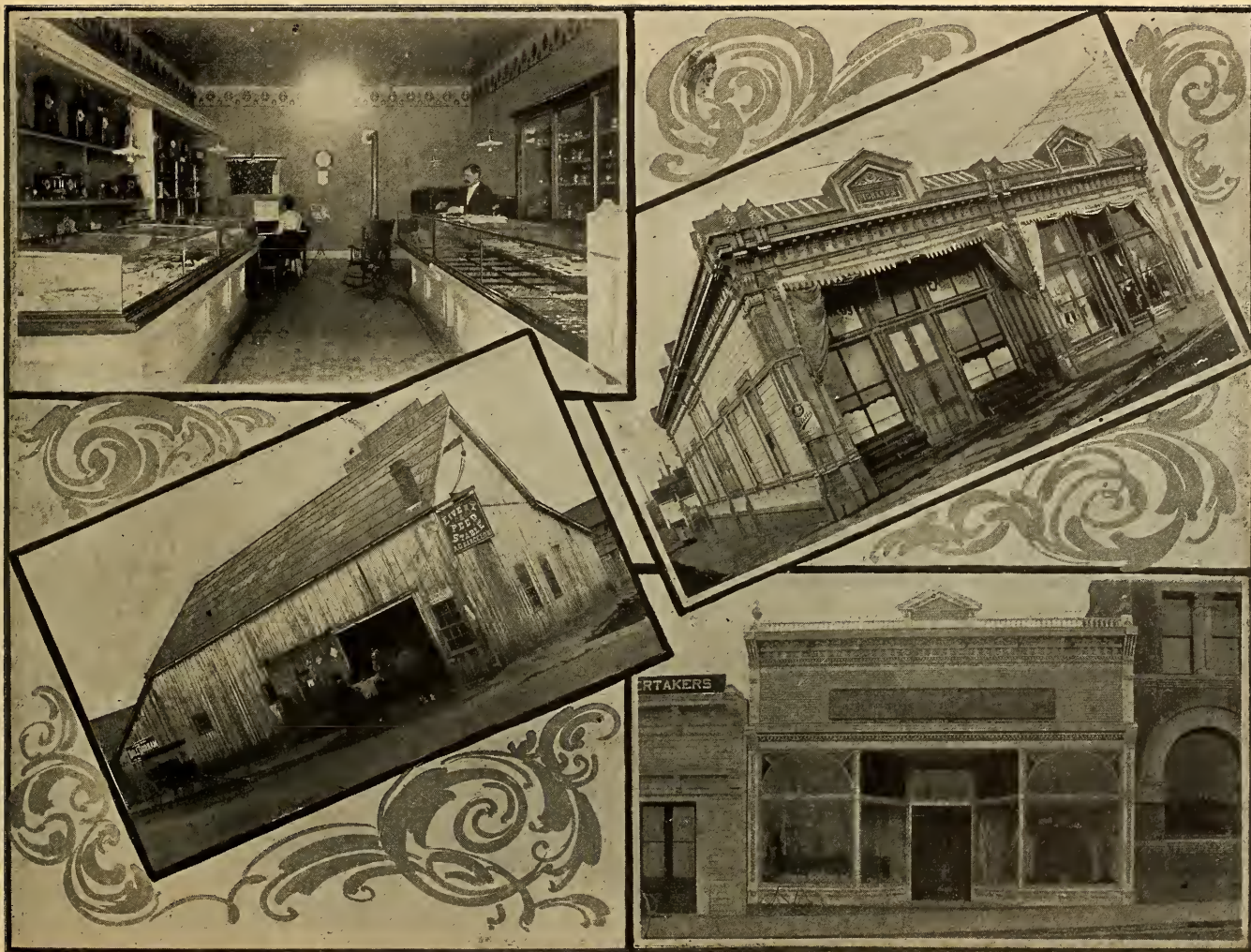
The first steam craft—the *Gussie McAlpine*—was built in the sixties for the Arcata route, and was employed in that trade until the *Alta* was launched from Bendixsen's, in 1878. The *Silva* was built in 1873, and the *Ada* in 1874—well-known bay steamers. 1875 the first ocean steamer—the old *Humboldt*, 300 tons—was launched from the foot of K street. She was built by E. & H. Cousins, with local capital, and for twenty years plied between this port and San Francisco, making nearly a thousand voyages, and probably did as much as all

other things combined up to that time to spread abroad the name and fame of Humboldt. She was wrecked on Point Gorda, Cal., September 28, 1895.

In 1893 another famous steamer was launched from the K street yard—the *Excelsior*, 548 tons burden. She was built by the late Peter Mathews, and was the largest and ablest steam schooner then afloat. She afterward found profitable employment in the Alaskan trade during the flush times in and around the Arctic Circle. The new *Humboldt*, built by Bendixsen in 1896, also went into the Alaskan trade, where she made a name for herself and a fortune for her owners.

The business of shipbuilding, so far as Humboldt is concerned, seems to have settled down at Fairhaven, where the Bendixsen yards have long been established, and where 120 of the 162 vessels have been built. This covers a period of more than thirty years, some of which were not years of prosperity. But success came abundantly in the end, for no shipbuilder on the coast stood higher in a professional sense than did H. D. Bendixsen, and with success came fortune. But death came also, and the pleasure that is supposed to flow from wealth and fame was not to be long enjoyed by him who had toiled so patiently for half a life time. But the famous Bendixsen yards will go on, having passed into the hands of a stock company some four years since. A number of large fine vessels have been launched from the yards under the management of the present company, and the H. D. Bendixsen Shipbuilding Company is fully sustaining the excellent record the yards have made in the third of a century during which they have been in operation.

In the fifty years which our history covers there have been great changes, not only in marine architecture but in the needs of man. The “pull” boat and the primitive sail boat which once served all the purposes of trade and travel upon the bay have long since passed to their account, and even the comfortable steamers that finally succeeded them are being crowded from their places by the steam car which circles the bay. The hundred-ton “ships” are replaced by the beautiful modern vessels of a thousand or twelve hundred tons, and the little settlements among the timbered hills have made themselves known to the world by the handiwork of the men who build their ships.



SOME ARCATA BUSINESS HOUSES

The Bendixsen shipyard although located across the bay, has always been considered an important item in Eureka's well-being. Many of the employees have their homes and families in this city. It is, therefore, of interest to know that over \$100,000 was paid in wages at the yards during the past year, the greater portion of which was spent in Eureka. The average number of men employed during 1903 was 160, and it is likely the same conditions will prevail during the present season.

The splendid reputation of Humboldt-built vessels, gained largely through the Bendixsen yards is too valuable an item to drop from our list of assets, and every Humboldt will wish that the Bendixsen Shipbuilding Company may gather fresh laurels with each new year of its existence.

A record of the vessels built upon Humboldt Bay is available, though a few of the very earliest craft are thought to have passed into oblivion.

Following is the list, with tonnage:

BAY SCHOONERS	
Name	Tonnage
Black Swan	19
Buckley	12
Dirigo	16
Enterprise	18
Fly	13
Forester	14
Mamie (sloop)	7
Mary Amass	5
May	5
Morning Cloud	30
Sea Gull	17

BAY STEAMERS.	
Ada	45
Alice	8
Alta	33
Annie	49
Antelope	32
Ellen	39
Glide (about)	60
Gussie McAlpine	45
Leone	6
Peerless (rebuilt)	10
Pert	45
Phoenix (rebuilt)	36
Silva	35

SCHOONERS.	
Abbie	150
Albert and Edward	100
Albert Meyer	398
Allen A.	325
Alvena	687
A. M. Baxter	460
Atlanta	65
Aurora	200

Name	Tonnage
Azalea	327
Bangor	485
Barbara Hernster	140
Bertha	231
Bertie Minor	230
C. A. Thayer	390
Challenger	265
Challenger	266
Chas. E. Falk	284
Chas. R. Wilson	328
Christine Steffens	80
Compeer	350
Czarina	218
Dashing Wave	165
David and Ettie	100
Daisy Rowe	135
Defender	382
Edward Parke	150
Ethel Zane	473
Elvenia	150
Esther Buhne	272
Espada	686
Excelsior	350
Fidelity	182
Fairy Queen	100
Falcon	195
Fortuna	138
George Higgins	100
Glendale	281
Golden Fleece	100
Golden Gate	100
G. W. Watson	430
Gussie Klose	100
Harmonia	65
H. C. Wright	275
H. D. Bendixsen	571
Hinaari	80

Name	Tonnage
Humboldt	125
Ida McKay	178
Ina	67
Irene	687
James Rolph	517
Jessie Miner	219
J. H. Bruce	476
Joan A.	268
John McCullough	75
John N. Ingalls	100
J. G. Wall	100
Joseph Russ	235
La Gironde	80
Laura May	120
Laura Pike	150
Lena Sweasey	243
Lillebourne	207
Lizzie Matson	75
Louise	328
Lottie Collins	75
Lucy	294
Luella	35
Lovely	80
Mary	65
Mary Buhne	150
Mary E. Russ	200
Mary Swann	150
Marian	65
May Queen	125
Vega	233
Martha W. Tuft	125
Mary Dodge	231
Mabel Gray	195
Marquesas	65
Maxim	125
Maggie C. Russ	186
Maweema	392



FIELD'S LANDING

Name	Tonnage
Metha Nelson	399
Mildred	411
Morning Star	100
Neptune	175
Occidental	198
O. M. Kellogg	373
Orion	125
Ottillie Fjord	247
Olga	473
Osceola	45
O. S. Fowler	55
Pauline Collins	75
Phoebe Fay	100
Ruby Cousins	185
R. W. Bartlett	495
Roy Somers	298
San Buenaventura	175
Salvator	444
Sadie	294
Santa Paula (oil barge)	632
S. T. Alexander	695
Stella	65

Name	Tonnage
Stanley	253
Sequoia	324
Undine	150
Varva	80
Venus	80
Vinnie	65
Volant	165
Wawona	413
W. F. Witzeman	499
Borealis	683
Crescent	1334

BRIGS.

Hesperian	240
Nautilus	175
Paloma	225

BARKENTINES.

City of Papete	370
Eureka	300
Georgina	870

Name	Tonnage
Hilo	644
Jane L. Stanford	922
John Palmer	1080
Kohala	776
Uncle John	299
Western Belle	271
William Carson	791

OCEAN STEAMERS.

Alliance	304
Chehalis	750
Despatch	539
Excelsior	548
Fulton	195
Hueneme	201
Humboldt	300
Humboldt (new)	688
Iaqua	467
North Fork	244
Nome City	1294
Pomo	300
F. A. Kilburn	400

SUMMARY.

Kind.	No.	Net Tons.
Bay Schooners	11	156
Bay Steamers	12	485
Schooners	114	27,456
Brigs	3	640
Barkentines	10	6,327
Ocean Steamers	13	6,230
Total	163	41,294



Bear River House, Capetown

Mattole Valley, Petrolia in the Distance

On the Wild Cat Grade

Ferndale and Eel River Valley

FINANCIAL



AN EXAMINATION of the annual reports of the County Assessor, reveal, in the increasing totals, the constant and steady growth of the wealth of the County, and as indicating a more general development of its magnificent natural resources, is a matter for congratulation on the part of her inhabitants.

During the past three decades the value of the real estate and personal property within the County, as shown by the assessment roll, has made a marvellous increase which the following figures will demonstrate.

Valuation of Property, Real Estate and Personal:

In 1871 was.....	\$ 2,532,911
" 1881 "	6,239,452
" 1891 "	16,905,117
" 1901 "	18,052,774
" 1903 "	24,911,492

while the rate of taxation for the County has decreased from \$2.50 in 1871 to \$1.60 in 1903.

The report of the Assessor for 1903 which follows, conveys much interesting information as to the details which go to make the wealth of the County.

Real Estate other than City and Town Lots.....	\$13,407,214
Improvements on same	1,019,350
City and Town Lots	3,205,720
Improvements on same	1,902,940
Total value of Real Estate and Improvements.....	\$19,535,224
Personal Property	2,613,405
Money	342,764
Solvent Credits	204,236
Total Value of all Property	24,911,492
Assessed Value of Trust Deeds and Mortgages on Real Estate	2,200,334

Description of Property	Number of Species, Pounds, Gallons, Tons, Etc.	Total Actual Cash Value of Each Class of Property
Jewelry or Plate.....		2040
Watches, (No.)	900	12,573
Cattle—Beef, (No.)	2608	52,908
Cattle—Stock, (No.)	16,870	174,780
Cows—Thoroughbred, (No.)	50	2590
Cows—American, (No.)	222	5780
Cows—Common (No.)	18,053	380,315
Calves, (No.)	10,318	52,080
Hogs, (No.)	5504	15,200
Mules, (No.)	387	11,175
Horses—Thoroughbred, (No.)	8	3900
Horses—American, (No.)	654	43,475
Horses—Common, (No.)	4939	156,015
Colts, (No.)	722	16,480
Sheep—Graded, (No.).....	523	2300
Sheep—Common, (No.)	78,558	118,085
Goats, (No.)	1428	2300
Poultry, (Doz.)	2372	5795
Farming Utensils		17,760
Wagons and Other Vehicles, (No.)	2896	80,535
Hay, (Tons)	133	1875
Wool, (Lbs.)	19,860	2000
Wood, (Cords)		1250
Coal		2050
Lumber, (Feet)		112,345
Machinery		192,465
Typewriters, (No.)	28	740
Bicycles or Tricycles, (No.).....	32	650
Firearms,		1675
Libraries—Law, Medical and Miscellaneous		12,330
Pianos, (No.)	588	58,550
Musical Instruments		11,695
Sewing Machines, (No.)	1716	17,375
Furniture		168,295
Steamers, Vessels, Watercraft, (No.).....	34	85,005
Harness, Robes, Saddles, etc.		22,810
Goods, Wares and Merchandise.....		473,185
Pipe—Water		19,275
Electric Light Plants		45,280
Fixtures of Saloon, Stores and other business		



VIEW OF EUREKA FROM INDIAN 1



View of Eureka from Court House Tower Looking South.
View of Eureka from Court House Tower Looking North

New Brick Building of Connick & Sinclair Fourth and F Streets

View of Eureka from Court House Tower Looking West
View of Eureka from Court House Tower Looking East



ISLAND, OPPOSITE WATER FRONT



WILLOW CREEK



VIEW OF EUREKA FROM INDIAN ISLAND, OPPOSITE WATER FRONT

Description of Property	Number of Species, Pounds, Gallons, Tons, Etc.	Total Actual Cash Value of Each Class of Property
places		43,980
Franchises not assessed by State Board of Equalization		41,400
Railroad Rolling Stock not assessed by State Board of Equalization		23,430
Wheat, (Centals)	200	200
Barley, (Centals)	200	140
Presses—Printing		10,550
Presses—Hay		100
Dogs, (No.)	457	4020
National Bank Stock		20,000
Telephone Boxes, (No.)	1663	16,630
Telephone Wires, (Miles)	882	28,630
Telephone Poles, (Miles)	192	7490
Telephone Cable, (Miles)	2¾	550
Telegraph Lines, (Miles)	90	4000
Logs		17,800
Automobiles, (No.)	3	600
Ferries, (No.)	6	2250
Railroad Iron		6500

Total\$2,613,405

The City of Eureka has a tax rate of \$1.00. The Assessor's report shows the valuation of propert to be as follows:

	1901	1902	1903
Real Estate	\$1,729,805	\$2,033,630	\$2,757,116
Improvements	1,158,225	1,250,900	1,840,725
Personal Property and Money....	779,175	1,041,881	1,042,824

Totals\$3,667,205 \$4,326,411 \$5,640,665

The total amount, of mortgages on city property is only \$353,637.

The banks of Humboldt County are seven in number, all incorporated with a total authorized capital of \$900,000, of which \$635,000 is paid up in cash. Of these, five transact an ordinary commercial business, the other two being designated as Savings Banks. The Humboldt County Bank, Bank of Eureka, First National Bank of Eureka, Home Savings Bank, and Savings Bank of Humboldt County have their places of business in Eureka; the Bank of Arcata, and the Ferndale Bank are located at the towns mentioned.

The Bank of Eureka was incorporated October 4th, 1889, opening its doors for business July 1st, 1890, having erected

its brick banking house in the interim. It transacts a general banking business, having ample facilities for handling any business in the legitimate banking line. The authorized capital is \$200,000, of which \$100,000 is paid in coin. The present directors and officers are, Directors: William Carlson, Robert Porter, Allen A. Curtis, Alex. Connick, J. K. Dollison, A. Berding, C. P. Soule.

OFFICERS.

C. P. Soule.....	President
Robert Porter	Vice-President
L. T. Kinsey	Cashier
C. H. Palmtag	Asst. Cashier
G. A. Belcher	Asst. Cashier

Following is the statement of Assets and Liabilities of date December 31, 1903:

ASSETS.

Cash on hand	\$127,839.65
Due from Banks	139,903.47
Bonds	192,071.40
Loans and Discounts	894,679.74
Bank Premises and Fixtures.....	21,178.04
Other Assets	1,664.04
	<hr/> \$1,377,337.14

LIABILITIES.

Capital Stock paid in coin.....	\$ 100,000.00
*Profit and Loss	67,224.98
Due Depositors	1,150,691.52
Due Banks	3,168.39
Other Liabilities	56,252.25
	<hr/> \$1,377,337.14

[*Accrued interest not included]

The Humboldt County Bank was incorporated February 27th, 1873, with an authorized capital of \$200,000, all of which is paid in coin. The bank transacts a general commercial business, the present officers and directors being:

Directors: C. S. Carson, John M. Vance, L. C. Tuttle, H. W. McClellan, F. W. Georgeson, N. Bullock, H. H. Buhne, Jr., J. M. Carson, S. W. McFarland.



ORLEANS

OFFICERS.

John M. Vance	President
J. M. Carson	Vice-President
F. W. Georgeson	Cashier and Secretary
G. Y. Henderson	Assistant Cashier

Following is a statement showing the financial condition at close of business December 31, 1903:

ASSETS.

Cash on hand and in Banks	\$ 383,245.98
Bonds	248,281.25
Loans and Discounts	509,096.53
Real Estate	10,091.68
Other Assets	2,946.33
	<hr/>
	\$1,153,661.77

LIABILITIES.

Capital Stock paid up	\$ 200,000.00
*Profit and Loss	48,854.40
Deposits	904,727.37
Other Liabilities	80.00
	<hr/>
	\$1,153,661.77

*Accrued interest not included.

The First National Bank is the latest addition to Humboldt's banking facilities, it having been organized September 17, 1901, with a capital fully paid up of \$100,000. The Bank commenced business November 4, 1903. The directors and officers are:

Directors: A. B. Hammond, S. I. Allard, G. W. Fenwick, George Langford, S. G. Murphy, C. G. Taylor, E. H. Vance.

OFFICERS.

A. B. Hammond	President
G. W. Fenwick	Vice-President
H. F. Charters	Cashier
Guy L. Roberts	Asst. Cashier

The following is the statement of January 22, 1904:

ASSETS.

Loans and Discounts	\$268,818.36
United States Bonds	134,500.00
Furniture and Fixtures	4,000.00
Cash on hand	\$61,926.64
Due from Banks	133,748.92
Due from Treas., U. S.	6,100.00
	<hr/>
	\$609,093.92

LIABILITIES.

Capital Stock	\$100,000.00
Surplus and Profits	8,487.97
Circulation	75,000.00

DEPOSITS

Individuals	\$365,207.31
U. S. Government	49,771.53
Banks	9,109.86
Accrued Interest on Deposits	1,517.25
	<hr/>
	\$609,093.92

The Home Savings Bank of Eureka, incorporated October 21, 1889, with a capital stock of \$100,000, of which \$50,000 is paid in coin, transacts, as its title implies, a general savings business. Deposits are received in sums of one dollar and upwards, interest being paid thereon semi-annually. The Officers and Directors are

Directors: L. C. Tuttle, John M. Vance, C. J. Craddock, N. Bullock, H. W. McClellan.

OFFICERS.

L. C. Tuttle	President
John M. Vance	Vice-President
Henry Sevier	Cashier
C. J. Craddock	Secretary

The following statement shows the condition of the Bank at the close of business, December 31, 1903:

ASSETS.

Cash on hand	\$107,109.50	
Due from Banks	70,284.44	\$177,393.94
Bonds		202,925.75
Promissory notes secured by first mortgages on Real Estate situated in Humboldt County, Calif.	265,661.45	
Other Assets	1,096.84	

LIABILITIES.

Capital Stock paid in coin	\$ 50,000.00
Reserve Fund	1,750.00
Due Depositors	572,325.10
*Profit and Loss	13,002.88

[The conditions of said Capital Stock and Reserve Fund are that no part of these amounts can be paid to stockholders or in any way be withdrawn except in payment of losses during the existence of the corporation, nor until depositors have been paid in full.]

\$647,077.98 \$647,077.98

*Accrued interest, not included in above statement, December 31, 1903.

The Savings Bank of Humboldt County was incorporated October 4, 1889, and opened for business in its own brick building July 1, 1890. The guaranteed capital stock is \$100,000, one-half of which, \$50,000 is paid in coin. The Bank transacts a Savings Bank business, receiving deposits in sums at the rate of three per cent per annum, free of taxes, payable semi-annually, has been paid. The present directors and officers are:

Directors: William Carson, Alexander Connick, Albert A. Curtis, Robert Porter, J. K. Dollison, A. Berding, C. P. Soule.

OFFICERS.

Robert Porter	President
C. P. Soule	Vice-President
L. T. Kinsey	Cashier
G. A. Belcher, C. H. Palmtag	Asst. Cashiers

Following is statement of Assets and Liabilities of date December 31, 1903:

ASSETS.

Cash on hand	\$ 23,244.55
Bonds	142,440.00
Promissory notes secured by first mortgage on real estate in Humboldt County, Cal.	545,993.00
Bank Premises and Fixtures	11,806.17
Other Assets	1.55
	\$723,485.27

LIABILITIES.

Capital Stock paid in coin	\$ 50,000.00
Reserve Fund	4,959.84
[The condition of said liability to Stockholders is that no part of the amount can be paid to them or in any way be withdrawn, except in payment of losses during the existence of the Corporation, nor until all depositors shall have been paid in full.]	
*Profit and Loss	21,398.35
Due Depositors	626,933.23
Other Real Estate	5,696.44
(Excess from sales—less cost of unsold property)	
Other Liabilities	14,497.41

*Accrued interest not included. \$723,485.27

The Bank of Arcata was incorporated September 11, 1886, with a capital stock of \$100,000 fully paid up. The Bank owns convenient premises in Arcata, and transacts an ordinary commercial business.

The officers are: Thomas Bair, President; O. H. Spring, Vice-President; Wesley W. Stone, Cashier; Frank H. Tooby, Assistant Cashier; the directors being O. H. Spring, Sylvester Myers, J. C. Bull, Thomas Bair, E. B. Jackson, J. P. Anderson, Wesley W. Stone.

Following is the report showing the financial condition of the Bank at the close of business, December 31, 1903:

ASSETS.

Bank Premises	\$ 9,766.55
Real Estate (taken for debt)	430.10
Loans and Overdrafts	326,321.19
Cash on hand	28,519.00
Due from Banks	87,155.97
Furniture and Fixtures	2,984.26

\$455,177.07

LIABILITIES.

Capital paid up	\$100,000.00
Due Depositors	281,687.99
Due Banks	23,660.01
Profit and Loss	49,829.07
	<hr/>
	\$455,177.07

The Ferndale Bank, located at Ferndale, incorporated February 17, 1893, with an authorized capital of \$100,000, of which \$35,000 is paid up, transacts an ordinary commercial business. The officers are: A. Putnam, President; E. P. Nissen, Vice-President; and J. H. Trost, Cashier.

The directors are A. Putnam, E. P. Nissen, J. H. Trost, C. H. Williams, J. A. Shaw, J. Rasmussen, P. J. Petersen, W. N. Russ and P. Calanchini.

The following statement shows the condition of the Bank at the close of business, December 31, 1903:

ASSETS.

Fixtures	\$ 2,395.47
Due from Banks	139,112.48
Loans	204,545.31

Cash	18,514.81
Bonds	550.00
	<hr/>
	\$365,108.07

LIABILITIES.

Capital Stock	\$ 35,000.00
Profit and Loss	7,826.89
Due Banks	5,137.51
Due Depositors	317,143.67
	<hr/>
	\$365,108.07

The Equitable Loan and Investment Company, incorporated April 22d, 1901, is organized to enable its stockholders to invest their savings in such a manner as to participate in the growth of values in property which is being made on the Pacific Coast. It has a capital stock of \$499,500 divided into shares having a par value of \$36 each. The capital stock issued amounts to \$112,824, with assets estimated at \$117,641.50. The officers are: Hon. J. N. Gillett, President; G. A. Dungan, Vice-President; E. G. Pluke, Treasurer, and S. I. Allard, Secretary.

EUREKA, CITIES AND TOWNS



EUREKA, the capital city of Humboldt County, is situated on the eastern shore of the northern arm of Humboldt Bay, about five miles from the entrance to the bay, from the Pacific ocean. The site is a very little north of the center between the northern and southern boundaries of the county, and is surrounded on three sides by water—the concave segment of the bay shore and tidal slough; from the water's edge the land rises gently and one mile back attains an altitude of about fifty to sixty feet, and five miles distant begins to ascend to a mountainous ridge, which divides the water shed of the upper and lower bays, and this point of the natural water shed system may be likened to a wide spread lady's

fan, the ascending ridge between the dividing water representing the handle and the natural drainage system the rays of the fan. The fall is just sufficient to insure quick and complete drainage, having an available outfall on three sides, making possible at ordinary expense a most complete and perfect system of sewerage.

The corporate limits embrace an area of about five and a half square miles; the streets are planned on lines nearly with the points of the compass in the older section and exactly with the U. S. Surveys in the newer section, which latter comprises about three quarters of the town site within the present limits. There are forty-two miles of graded streets, seventy-two miles of twelve-foot sidewalks and fourteen miles of

three-foot sidewalks, making a total of eighty-six miles—the city enjoying the reputation of having more miles of sidewalk according to population than any other city on the Pacific Coast. The streets are paved principally with gravel, except in the business portion where bituminous pavement has been laid. The city has about three miles of water-front, one-third of which has been improved with wharves, slips, boat landings, etc. The bay has twenty-seven miles of navigable channels, and large ocean craft can come and go without difficulty.

The population of Eureka is to a far larger extent than usual in cities, a community of home-owners, thereby insuring a permanent and stable foundation for business and industrial

growth; a guarantee for a continuous growth, for the fact that there is a permanent community of home-owners, is proof that there is an attraction here for the permanent home builders.

The population according to the census of 1900 was at that time 7,327, though careful census of the school children indicated a much larger population.

On January 1, 1904, a new census of the city was taken and it showed a population of 11,111. Other information regarding the growth, development and condition of Eureka, was gathered at the same time. The figures and facts are given in the following tabulation of results:

Classification of Inhabitants

Age	Males	Females	Total
Under 5 years	389	369	758
Between 5 and 17 years..	1,236	1,082	2,318

Total under 17 years..	1,625	1,451	3,076
17 years and over	4,824	3,211	8,035

Total population	6,449	4,662	11,111
Ratio of total population to children of school age (5 to 17 years:)			

$$\frac{11,111}{2,318} = 4.79 \text{ to } 1.$$

Nativity of Population

Native born	7,991
Foreign born	3,120

Total	11,111
-------------	--------

Number of Buildings

When Constructed.	Res.	Bus.	Total
Prior to 1901	1,718	265	1,983
In 1901	99		99
In 1902	83	3	86
In 1903	149	16	165
In course of construction	45	5	50
Total	2,094	289	2,383

The foregoing table does not include churches, schoolhouses, mills, factories, county, and city buildings.

Ownership of Buildings

Dwellings occupied by owners	1,036
Dwellings occupied by tenants	996
Dwellings unoccupied	17
Dwellings in course of construction....	45

Total dwellings as above	2,094
--------------------------------	-------

Manufactories and Business Industries

Nature of Plant or Industry	No. Plants	Emp. ployees
Saw Mills—operative	3	248
Saw Mills—in course of construction	1	
Sash and Door Mills—operative	3	56
Sash and Door Mills—in construction	1	
Shingle Mills	3	40
Woolen Mills	1	64
Preserving Plant	1	6
Ice Plants	2	7
Mattress Factory	1	4
Boiler Works	1	20

Iron Foundries and Machine Shops.	2	45
Machine Shops	3	23
Repair Shops	4	8
Cigar Factories	3	18
Tailoring Establishments	9	40
Marble and Granite Works.....	2	9
Breweries	1	7
Bottling Works	4	30
Laundries—steam	3	75
Lighting Plants, 1 Gas, 2 Electric	3	56

(In one ownership—private)

Water Works—steam pumping plant—private	1	20
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Across the bay from Eureka, and within one mile of the city limits are the following plants:

Sawmill	1	235
Sash and Door Mill.....	1	125
Planing mill—for dressing manufactured lumber only.....	1	26
Shingle Mills	3	58
Shipbuilding Plant	1	60

General Business Industries of Eureka

(Banking and Investment)

Commercial Banks	3
Paid up Capital	\$400,000

Surplus, December 31, 1903.....	124,365
Deposits, December 31, 1903.....	2,464,595
Savings Banks	2
Paid up Capital	\$100,000
Surplus, December 31, 1903.....	44,000
Deposits, December 31, 1903.....	1,199,258
Investment Company	1
Paid up Capital, December 31, 1903....	\$66,291
<hr/>	
Total Capital and Surplus.....	\$734,656
Total Deposits.....	3,663,853

Abstract and Title Companies	2
Commission Houses—wholesale.....	3
Groceries—retail	25
Tea, Coffee, and Spice Houses.....	2
Hardware	7
Hardware and Ship Chandlery.....	1
Plumbing and Tinware	6
Guns and Sporting Goods	3
Paints, Oils, and Wall Paper.....	5
Mantels, Tile, and Builders' Material...	1
Furniture	10
Crockery and Glassware	1
Stationery	4
Jewelers	7
Liquor Dealers—wholesale.....	5
Liquor Dealers—retail	63
Cigars and Tobacco	8
Musical Instruments	4
Meat Markets	5
Fruit and Vegetable Markets	5
Fish Markets	2
Bakeries	4
Harness and Saddlery Shops.....	2
Drug Stores	8
Optical Supplies	2
Candy Factories and Ice Cream Parlors..	3
Dry Goods and Fancy Goods.....	8
Clothing and Furnishing Goods.....	7
Millinery	6
Shoes Stores	3
Auction Houses	1
Dyeing and Cleaning Works.....	2
Photograph Galleries	5

Shooting Gallery	1
Blacksmith Shops	8
Barber Shops	18
Bootblack Stands	6
Shoemakers' Shops	11
Florists	3
Undertakers	2
Livery and Feed Stables	5
Coal and Wood Yards	6
Warehouses—general storage	5
Junk Dealers	2

The Professions

Physicians and Surgeons	20
Physicians—Osteopathic	3
Dentists	13
Chiropodist	1
Veterinary Surgeons	2
Attorneys at Law.....	39

Hotels, Restaurants, Lodging Houses

14 Hotels, accommodating 1086 people.	
28 Lodging Houses, accommodations for 712 people.	
Restaurants	9
Tamale Houses	3

Printing and Publishing

Daily Publications	3
Weekly or Semi-Weekly	4
Job Printing Offices	6

Schools—Public and Private

CLASS	Schools	Rooms	Teachers	Pupils
High School—public.....	1	6	6	210
Grammar and Primary—public	14	33	33	1544
Business College.....	1	4	4	40
Preparatory School.....	1	2	1	30
Total.....	17	45	44	1824

Churches	13
Fraternal Societies	26
Opera House—first class, seating 950....	1
Theatres	2
Private Hospitals	3
Telegraph—Western Union Telegraph Co....	
Telephone—Sunset Telephone and Telegraph Co., 1508 instruments in operation—40 employees.	
Express—Wells, Fargo & Co.	

Public Buildings

County Court House, value	\$200,000
County Hospital, value	50,000
County Receiving Hospital, value....	10,000
Superior Court, two departments.	

City Buildings

Free Library, value	\$35,000
Four Fire Company Houses....	} value..\$7,000
One City Hall,	
New City Hall now in contemplation.	

Public Offices

United States Customs Office.
United States Land Office.
United States Weather Bureau.
United States District Court Commissioner.
United States Deputy Marshal.
State Harbor Commissioners.

Fire Department

Steam Fire Engines	2
Hays' Truck	1
Hose Companies	4
Water Supply, Hydrants; pressure, 70 lbs.	
Fire Alarm System—Gamewell Telegraph.	
Alarm—Steam Whistle and Bell.	
Number of Alarm Boxes, 20.	
Department is Volunteer; Chief, Stokers,	
and Engineers paid.	

General Information

Miles of Streets opened and on official grade, with 12 foot sidewalks.....	33 $\frac{1}{8}$
Miles of Streets, opened and turnpiked, with narrow walk on one side.....	12 $\frac{1}{2}$
Asphalt Pavement, No. of Blocks.....	16
Electric Street Lights—Arc.....	85
Street Railway Company	1
Track now operated, miles	5 $\frac{1}{4}$
System—Electric Trolley.	

Service—Excellent.

Employees	30
Sewers—Sanitary and Storm.	
System—Gravity to Humboldt Bay.	
Constructed in 1902 by Bond issue for	
\$85,000.	

City Assessment, 1903

Value of Real Estate.....	\$2,718,456
Value of Improvements	1,333,615

Value of Personal Property.....	718,701
Money and Solvent Credits.....	323,403

Total value for taxation.....\$5,094,175

Mortgages assessed	346,357
Total Tax for Municipal purposes	\$43,243.22
Total Tax for High School	7,650.78

Total tax for all purposes....\$50,894.00

The municipal government is vested in the following elective and appointive officers: Elective officers—Mayor, five Councilmen, Board of Education, five; Library Trustees, five; City Clerk and Ex-Officio Tax Collector, City Attorney, Superintendent of Streets, Police Judge, Assessor, Treasurer, City Engineer. Appointive Officers—Chief of Police, Policemen, five; Harbor Master (appointed by Governor; paid by city), Librarian, Board of Health, Pound Master and Garbage Master.

During the last two years there have been built many dwellings, large and small, and among which are now very attractive and complete residences, constructed after modern principles, which give evidence of the progress that is being made in beautifying private homes and public buildings. In fact the advance made in this direction during the last five years has been marked to a prominent degree, and the plain modest box structure of the first home-builder, is giving away to more ornamentation and the breaking of plain lines. Substantial and durable modern business houses are also rapidly taking the place of the plainer, pioneer buildings. Dwellings rent from \$6 to \$25 per month, according to accommodations and proximity to business center.

The cost of dwelling edifices has a wide range, running from a few hundred dollars for the simple plain cottage of the day laborer on the outskirts, to the pretentious mansion of the capitalist, costing \$10,000, \$20,000 and \$100,000. The same is true of business houses and blocks; in the heart and center of the business section, nothing but substantial and attractive buildings are now being erected, the cheaper accommodations being crowded to the side streets.

While redwood is the material almost universally used in the construction of both residences and business blocks, yet in the business center the use of brick for material, and the most approved modern architecture, are coming into vogue. Rents of business places run from twenty dollars to two hundred dollars per month.

In business buildings, the most notable improvements of the past year have been the Georgeson Block, a handsome four-story structure on the corner of Fourth and E streets; the Gross Block, a Roman brick edifice of massive appearance, and upon which no money was spared to make it modern in every detail, on the corner of Fifth and F streets; the Metropole, a three story building erected by A. Abrahamson on the corner of Second and D streets; also a two-story building by the same owner at the corner of Fifth and A streets; the Ricks Block, just completed, a three-story edifice in the heart of the business section on F street; the Needs Building on the corner of Third and E streets, now in course of construction. In addition there has been the erection of many smaller buildings, and the remodeling and enlargement of some of the older ones. Among the latter might be mentioned the Vance House, which was enlarged and refitted at a cost of some \$40,000 making it a first-class hotel in every detail.

The city is lighted by means of a double electrical plant, having about one thousand poles, two hundred miles of wire, and five thousand lights. Besides light, the plant is furnishing power for both the street railway and manufactories. Connected with the electric works and owned by the same parties, is a gas works which manufactures gas from oil; it has eight miles of mains and one hundred and seventy miles of ser-

vice pipe. It has a capacity of forty thousand feet daily, and rates are two and a half to three dollars per thousand feet. In this connection it should be stated that power, though furnished now at a reasonable figure, will soon be still cheaper. The Electric Lighting Company has definitely decided to take advantage of the vast water power going to waste on the South Fork of the Trinity river. It has already procured the site and will erect a plant. A line of wires will be put in to carry the current to this city. Power and lights will be furnished, not only to Eureka, but, to other towns of the county, and manufacturing plants both in the country and along the shores of the Bay. The plans now drawn for the plant indicate that it will cost in the neighborhood of a half million dollars.

Eureka is also to be given power from another source. J. C. Bull Jr., the owner of the electric street car system, has headed a company, which will establish a plant on the Klamath river, about sixty miles north of Eureka. This, also, will cost about a half million dollars. It will not only supply the street car system, but also the general public with power and lights.

The electric street car system is an evidence of the improvement and advancement of Eureka, that came into being last year. Years ago Eureka had street cars drawn by the patient mule, but the line was abandoned and the tracks torn up. Last year J. C. Bull Jr., obtained a franchise for an electric system from the Council, and in six months had built and equipped the line. The first cars were run last September. The equipment is a splendid one, and the service given is excellent. The lines have been constantly extended until now the major portion of the city is covered. The present year, in fact, as soon as the weather permits the commencement of the work the line is to be extended to Arcata, twelve miles distant, at the head of the bay.

The telephone system has twenty miles of poles, over fifteen hundred boxes, one hundred and seventy miles of iron wire, and thirteen miles of copper wire, and the work of extension is going on daily. Long distance connection is made with San Francisco down the coast. Telegraphic communication is also had throughout the State.

Good water is supplied to this city through the Ricks'

Water System, the water being taken from Elk river about five miles from the city limits. The water is very pure and by analysis stands among the highest service waters in the State, according to the late Professor H. G. Hanks. The system has eighty-two thousand three hundred and sixty-five feet of mains, thirty-three thousand feet of service pipes, and fifty-seven hydrants. The capacity of the pump is one million five hundred thousand gallons every twenty-four hours. An above-ground tank of five hundred and fourteen thousand gallons capacity gives a pressure of sixty-five feet. Ricks Water Company was organized and incorporated March 6, 1889. Last year the system passed into the hands of a company of heavy capitalists, at the head of which is Thomas Bair. Plans are already perfected for the improvement and extension of the works, so that even the most remote section of the city will be covered. This work will be prosecuted vigorously this Spring and Summer, and will entail an expenditure of over \$100,000.

As the county seat of Humboldt County, Eureka has the Court House, which is the only Court House in the State of California of its dimensions and cost that has been built without incurring a bonded debt. It cost \$200,000, and was built in three sections, in three consecutive years; the base was constructed of concrete and the main walls of brick; a special tax was levied by the county for three consecutive years, and the contracts for each section were paid in cash as they were finished. It is one of the most capacious and well appointed Court Houses in this State, and is arranged for and at present accommodates two departments of the Superior Court, and all of the County officers, besides affording detention quarters or jail. The figure of Minerva, the Goddess of Wisdom and War caps the dome and stands 170 feet above the level of the surrounding streets.

The federal offices and officers are scattered around the city, the general government not having yet been induced to put up a United States Building giving proper and adequate accommodations to these officers. There are Collector of Customs, Weather Observer, U. S. Deputy Marshal, U. S. Court, Commissioner, Postmaster, U. S. Register of Land Office, U. S. Receiver of Land Office and Referee in Bankruptcy. There is every prospect now that at the next session, Con-

gressman Gillett will procure an appropriation for a public building in this city.

While Eureka has not in the past possessed a remarkable library, yet it has for many years maintained a fairly good one of some 3000 volumes, and it has been a very great aid to the public school children as a reference library, besides supplying the general public with an acceptable range of reading matter. The donation by Andrew Carnegie of \$20,000 to the city for library purposes, gave Eureka a modern library building. Public spirited citizens immediately and freely contributed \$10,000. Upon notification of the fact of the \$20,000 donation, public spirited citizens immediately and freely contributed \$10,000, and the new building has been erected. It is a handsome fire proof structure of cement, brick and slate. It stands on the corner of Seventh and F streets. The library will be moved into its new quarters within a month or two.

California is perhaps as widely known for the excellence of its educational system as for the grandeur of its scenery. The State has provided for free public instruction reaching from the kindergarten to the University. Stanford University and the University of California are known throughout, the length and breadth of the land and attract every year hundreds of students from other States and foreign countries. Nor are the elementary and high schools inferior to the universities in efficiency. Practically all the high schools in the State are accredited schools, that is the graduates are admitted to the University without examination. A large percentage of university trained teachers seek positions in the elementary schools for the reason that the salaries are higher than paid elsewhere in other States.

The Eureka schools compare favorably with any in the State. Ten months of school each year are provided for by the City Charter. The rules of the Board of Education require that only experienced and successful teachers or University or Normal graduates shall be eligible to positions in Eureka. There are thirty-three teachers employed in the elementary schools and four in the High School. Owing to the rapid growth of population the school department was compelled to use rented buildings that were not entirely suitable for school purposes, but the city in 1901 issued bonds for the construction of two new ward buildings. These buildings are

the best of their class, provided with large play-rooms in the basement and equipped with the most modern heating, ventilating, and sanitary systems. Since their completion, however, the population has increased rapidly, and more school houses are now urgently needed. These will be provided this year, either through the issuance of bonds, or by selling real estate now belonging to the Department, but which is not suitably located for school purposes.

The course of study is very complete and thorough, and pupils from the Eureka schools are able to enter the corresponding grade of any school in the country. The report of the examiners of the University of California shows that Eureka has the best High School in Northern California and that it is of equal grade with the very best secondary schools in the State. Seven lines of work are taught throughout the High School course. English, including Grammar, Composition, and Literature, Latin, History, English, Ancient, Mediaeval and Modern, and United States including Civil Government; Algebra, Plane and Solid Geometry, and Trigonometry; Science, Physical Geography, Botany, Chemistry, and Physics; French and German. All the subjects taught during the past year were accredited by the State Normal Schools, the California and Stanford Universities.

Up to 1902, the city had about nine miles of sewers, and a system that was antiquated in a good many respects. A bond election was held and \$85,000 was voted to remodel and extend this important essential of a modern municipality. This work was done, and well done, but the past year has seen such activity in building, particularly in what were considered the outlying districts that the need is now strongly apparent for a further extension of the system. This work will be done immediately. The City Council is now drafting a call for a bond election, and a portion of the money is to be used for giving facilities to those sections which are now unsupplied.

At this same election, the people will be called upon to vote bonds for the erection of a City Hall, a crying need of the municipality of years. Most of the city officials are now housed in rented buildings, and very poor ones at that. By this time next year it is expected that the city will be adorned with a stately municipal edifice.

A most efficient fire department, and fire alarm system, guards the city from conflagrations. The department is volunteer, has two steam fire engines, two hook and ladder and four hose companies well equipped, officered and manned.

The fraternal orders are well represented, well sustained, and have flourished to unusual vigor. The Masons, Odd Fellows, Knights of Pythias, Orangemen, and Native Sons and Daughters all own well-appointed halls in which the several lodges and auxiliaries of their crafts find their homes.

The Humboldt Club, the Monday Club, the Wednesday Club, and the "Koffee Klatch" are purely social organizations.

Eureka has a strong and flourishing Chamber of Commerce, which has done much for the advancement of the interest of the county. It has finely appointed rooms on Third street, the finishings being in woods native to Humboldt. The Chamber maintains an exhibit with the State Board of Trade in the Ferry Building, San Francisco. C. P. Soule, president of the Bank of Eureka, is president of the organization, and George A. Kellogg, secretary.

The citizens are a church-going, church-sustaining people, as is evidenced by the fact that there are sixteen church organizations owning church edifices at which regular services are held.

As auxiliary to them are the Young People's Society of Christian Endeavor, composed of adherents of most of the Protestant churches, the Epworth League of the Methodist church, Young People's Institute of the Episcopal church, Altar Society of the Catholic church, besides which, most of the churches have Ladies' Aid Societies, and many have Christian Women's Boards of Mission.

The Women's Christian Temperance Union has a full and strong organization.

The labor organizations are well represented, practically every class of labor in the county now having been unionized.

Military organization consists of the Fifth Division, Naval Militia of California, which has a permanent hall, and full equipment.

Of industrial institutions, while manufactures are not as widely diversified as opportunity has offered, yet there is a healthy showing, and there is a large and permanent population that finds constant employment to the amount of a gen-

erous payroll monthly, as will be seen by reference to the tabulated results of the census taken the first of the year.

Most of the diversified industrial enterprises seem to be tending to the east end of the city along the bay shore. Several have been established there within the past year. The good work being done by the East End Club in caring for the interests of that section, and setting forth its advantages, have had no little effect. Centered in the East End now are the Eureka Foundry, the Eureka Boiler Works, the shingle mill of R. L. Haughey, and the Burgess Planing and Moulding Mill.

The Eureka Foundry Company owns and operates a plant of large size, and capable of caring for all the heavy work of the lumber mills and logging camps. It builds and rebuilds locomotives and engines of all descriptions. It constructs all the heavy "bull-donkeys" which are used in the logging operations in this county, and the invention of which practically revolutionized the lumber business here.

The Eureka Boiler Works is an extensive institution. It has established a reputation for its work second to none, and in consequence keeps a large force constantly employed.

The shingle mill of R. L. Haughey has just been completed. The former plant, near the site of the present one, was burned down last fall. The new plant is a larger one, and is modern in every respect. The output from this plant is sent east. This mill has been shipping its product into the east for years, and it is in great part due to this that redwood shingles have come to be recognized in the markets across the Rockies as superior to any other shingle. For years, this plant was the only one sending shingles out of California.

Eureka has the usual number and variety of business houses found in a city of this size anywhere. Among them might be mentioned James E. Mathews, dealer in pianos and stationery; A. C. Dauphiny & Co., and A. Cottrell, wholesale and retail dealers in groceries; and Delaney & Young wholesale dealers in liquors.

Between Eureka and Samoa run several lines of launches, besides the regular ferry service of the railroad steamer. The chief of these is that of the Coggeshall company, one of whose launches is shown in a "cut" on another page.

The Humboldt Woolen Mills is an industrial institution added to Humboldt's enterprises in 1901, and it proved very successful. In the first year of its operation it accomplished the unparalleled and most satisfactory achievement of paying 7 per cent on all money invested, after having educated an almost entirely raw set of help, getting new machinery into operation and working up a market for its product. It has orders far in excess of its capacity and steps are being taken to put in additional looms.

There are two good theatres, the Ingomar and the Occidental. The Ingomar has a seating capacity of fixed seats of 837, and is one of the finest finished and appointed theatres in the State. The Occidental Theatre has a seating capacity of 1400.

The press is represented by five newspapers, two of which issue daily and weekly editions, one is a daily only, and two are weekly publications solely. The dailies are The Humboldt Times, the Herald, and The Humboldt Standard; and the weeklies are The Californian and the Methodist Church Bulletin.

The needs and comfort of the sick and invalid are well provided for in private hospitals, there being the Humboldt General Hospital, the Sequoia Hospital, the St. Helena Sanitarium, and Dr. Gaynor's Sanitarium, all of which have in attendance the best medical skill of the city.

ARCATA.

The town of Arcata lies at the northern end of Humboldt Bay, eight miles from the City of Eureka by rail. It is the center of a rich farming, dairying and lumbering district and is beautifully situated lying on a gentle slope rising from the bay in view of the mountains and ocean. The streets are wide and well kept and the town is laid out on a neat plan, the business houses being built around a public park which has been converted into a beautiful spot, replete with green lawns, shrubbery and flowering plants. The principal residence portion of the town is situated on a hill with a gentle slope, and here are to be seen the most beautiful residences of the town. Arcata has a population of nearly 2000 people which is constantly increasing. In fact the great trouble for

some time past has been the scarcity of houses to rent. This difficulty has been in some measure overcome by the erection of a number of new residences, but there is still room for many more. The town has a complete lighting system of arc lights for the streets and incandescent for the houses, there being more than 2000 of the latter in use. The lights are cheap and good. There are two good water systems and the town is well protected from fires, having a volunteer fire department with three hose carts, hook and ladder trucks, etc. The streets are graveled and sprinkled in the summer time, and there are plenty of sidewalks and crossings. The people also have the advantages of an excellent free library and reading room, a Union High School accredited to the principal universities, and a good grammar school with five teachers. The town contains five churches, Presbyterian, Methodist, Catholic, Adventist and Episcopalian; Masonic and Odd Fellows building, a Native Sons Hall, a Pythian Castle, and a theatre.

One of the principal advantages of the town is the excellent sewer system, making it a healthy and desirable place to live. This is to be further improved and extended, an election having been called for March 12th to vote bonds for this purpose.

The town is incorporated and is orderly and well governed. Arcata has daily mail with the surrounding country, four daily mails with Eureka, and is the center of the rural delivery system supplying the adjacent country.

Lying around and adjacent to the town are at least 15,000 acres of first-class farming and dairying land, averaging in price from \$100 to \$300 per acre. A large part of this is reclaimed land which, when cut up into small holdings, which it will be in time, will make homes for many more people than are here at present. Most of the soil is alluvial loam, and all bears green grass twelve months in the year. Dairymen average \$40 per year income per cow, and most dairies will carry one cow to the acre. The average price paid for butter fat for the year was twenty-two cents per pound. Dairymen are paid cash for their milk every thirty days. Within a radius of a few miles from the town are eight creameries, making it easy to transport the milk from any point.

One of the principal sources of wealth to the town is the large number of shingle mills, lumber mills, bolt camps, and other industries, lying tributary to the town. Within the town there are several industries, the principal ones being a planing and moulding mill owned and operated by D. K. Minor & Co. and doing a high class of work; a barrel factory, established last year; a shingle and shake mill and a tannery.

Arcata is an ideal residence town and in time promises to be to Eureka what Oakland is to San Francisco. Town property is reasonably cheap, and its healthy location and excellent school facilities have attracted many desirable families in the past and will attract more in the future. Particularly will this be the case with the completion of the electric road around the Bay.

The Arcata Union is the only Republican paper in northern Humboldt, and has a circulation of over 1500. It circulates largely among dairymen, farmers, stockmen and woodsmen, and is a good advertising medium. The Union was started in Arcata in August, 1886, with Austin Wiley as editor and proprietor. It was then a six-column, four page paper, and was published in the small building opposite the A. & M. R. R. depot. Several years afterward it was moved up town to obtain more room, and occupied the Vassaide Building on H street. About four years ago Mr. Wiley retired from the active management of the paper and turned it over to his two sons, Reese M. and Lee F. Wiley. In May 1901, the paper was moved to the northeast corner of the plaza, in the Arcata Union Building, which was purchased and especially fitted up for the paper and job printing department. The offices are conveniently arranged, with a business office, editorial office, composing room, stock room and press room. The paper is printed on a Campbell rotary press, which stands on a foundation of solid concrete, the only one in the county. The power is furnished by a six-horse power water wheel which runs the job presses as well. The Union is now an six-column, eight page paper, issued semi-weekly.

FERNDALÉ.

Ferndale is located on the southern edge of Eel River Valley about four miles, in a direct line, from the beach, and

is just at the base of the foot-hills that bound the valley on the south. It is eighteen miles southward from the county seat, and can be reached in a five or six miles drive from Loleta, Singley, Fortuna, Rohnerville Station and Alton, all stations on the San Francisco & Northwestern Railway, the main thoroughfare and stage and mail connection being via Singley. Ferndale is incorporated, and in good organization; it has an excellent sewer system, fire and water systems, and is connected with a long distance telephone line to San Francisco. It has a bank, two hotels, four churches, and fine school accommodations. Besides having every line of trade represented, it has express service to supplement the United States mail; it has machine-shops and mechanical works, foundry, wire-mattress factory, and is the business center of the largest and choicest section of Humboldt County creamery lands. Lying at the base of the foot-hills on the south side of the valley it faces northward, and from the first rolling foot-hill that commences its ascent on the south, the prospect, east, north and south looks out over as fair a picture and productive a country as can be found under the sun.

Ferndale is the center and business point for this marvellously productive section, for a radius of from four to seven miles on the valley side, while its business extends forty and fifty miles into the hills on the other or southern side, embracing Bear River, Mattole Valley, Rainbow Ridge, Elk Ridge, and much of the South Fork of Eel River section. Incredible as it may seem the productivity of the valley lands are such that they command all the way from \$200 to \$500 per acre. These lands are almost exclusively applied to dairying purposes. While the creamery and cheese factory handle a very large proportion of the milk, yet there are some who make butter after the dairy method, but almost invariably all such have become to a certain extent fancy dairies and supply a special line of home custom. The population surrounding Ferndale forms a most thrifty and prosperous community; there is little of mortgage indebtedness, and it possesses the elements of continued prosperity.

Ferndale has one newspaper, the Ferndale Enterprise, a semi-weekly, conducted by Carr, Hart and Frost. It is a seven-column eight-page publication, and thoroughly fills the

field. It is strongly supported by its constituency, and has a large patronage. In politics, it independent, though with decided Republican leanings.

Ferndale has communication with the outside world through Eel River. Port Kenyon, on Salt River, a tidal affluent of Eel River, is the shipping point. The first vessel to enter Eel River was the James A. Ryerson, in April, 1850. The second was the schooner Mary Cleveland, and the settlement made at that time was about four miles north of Ferndale, and was first called Cleveland. A postoffice was established with Thomas Dungan as postmaster.

The occupation of the section surrounding Ferndale dates from about 1850. In 1856 there were but three settlers on the bottom, and thirty-five acres of land under cultivation. In 1859 there were thirty-five farmers, with four hundred acres under cultivation.

FORTUNA.

Fortuna is a beautiful town of from 1200 to 1400 inhabitants and is situated on Eel River, twenty miles almost due south of Eureka. It is reached by the S. F. & N. W. Railroad. Fortuna's chief claims to distinction lie in its pretty location on the river bank and its admirable—in fact almost perfect—climate. The town is far enough back from the ocean to escape most of the coast fogs, and yet not far enough to become oppressively warm in summer. From a village called Springville, starting up at the time the railroad was built, it has grown to quite a pretentious town with a large and constantly increasing business. It has now two first-class hotels, four general merchandise stores, two confectionery stores, livery stable, express, telegraph and telephone offices, newspapers, and an electric light plant. All these, with kindred establishments, are doing a profitable business, and the town shows a healthy growth with the close of each year.

Fortuna has a good water system, which is owned by W. M. Morgan, who also conducts a real estate office, handling most of the valley lands that change hands.

It is a town of homes, containing many handsome residences. Among them might be mentioned that of Eli Bagley,

as shown in a "cut" on another page. A feature of it is the word "Home" made of living evergreen trees.

Fortuna is decidedly a "school town." Two magnificent school buildings, one of which is entirely paid for, furnish ample room for the three hundred or more pupils.

The big plant of the Humboldt Milling Company is located in this town. It is one of the largest door, moulding, sash, shingle and shake establishments of the county, and in addition to the mill business conducts the electric light plant.

The Eel River Valley Lumber Company's mill and logging operations are conducted within a mile and a half of the town, and the small army of men employed there make Fortuna their headquarters.

The Eel River Valley Advance, one of Fortuna's newspapers, was founded in 1888 by L. F. Stinson, who conducted it until March 1st, 1900, when it passed into the hands of the present editor and proprietor, Charles O. Wellock. The Advance is Republican in politics and makes a specialty of local happenings. It is published twice a week.

Fortuna's second paper is the Beacon, owned and edited by G. A. Jasper. It is issued weekly.

BLUE LAKE.

The pretty and growing town of Blue Lake, eight miles southeasterly from Arcata, is on the easterly side of Mad River. It is the natural business point of a number of interests. Both up and down the river there is quite a territory of fine bottom farming and dairying lands, embracing several thousand acres, the area being amply sufficient to sustain a good creamery if a fair portion of the land were devoted to producing milk. There is a large lumbering population within a radius of two miles on both sides of the river, and the town is also the supply point for a large section in the Bald Hills, back of the timber belt. The wagon road eastward to the Bald Hills and the Trinity mines, leaves the river and ascends the hill from this point and it is the thoroughfare for a large inland trade. The Arcata and Mad River R. R. passes through the place, and it is served with mail, telephone and telegraphic communication. The climate is tempered to a milder degree than obtains nearer the coast, and

but little fog reaches the location. Blue Lake has a good array of stores, business houses.

Its interests are well represented in a weekly newspaper, the Blue Lake Advocate, issued and conducted by Gus Perigot. It is a six-page publication and enjoys a large and increasing patronage, having for its territory, not only Blue Lake and vicinity, but also the large section of the county lying to the northeast of that town.

HYDESVILLE.

Hydesville stands guard at the head of the open valley of Eel River, twenty-six miles southeast of Eureka. Located on a high table land where the river makes its debouché from the hills and mountains, it has an elevation of about 500 feet above the surrounding valley, and from the viewpoint nearly every corner of this fruitful valley lies open to a single sweep of the eye. It is a rare and rich scene of industrial life framed by wooded hills, with the stretching Pacific in the dim distance to the westward. It is about one mile distant from the railroad station of Burnell's, and its communication with the world is by wagon road, postoffice and telephone. Its immediate surrounding country is devoted almost exclusively to hay and grain. Some milk is produced and served at a near-by creamery. It has one shingle mill, one hotel, three churches and a good school. It is one of the oldest towns of the valley, and is the supply point and business place for much of the back country. In earlier days it enjoyed a much larger trade than at present.

It became the residence place for a large number of the well-to-do stock and sheep men who held large ranges in the hills, and the town has always held the appearance of comfortable superiority. For slightly views, climate and pleasant surroundings it will always be an attractive place for home-seekers.

Among the homes both in Hydesville and the contiguous country, and also business houses shown in our illustrations are those of Frank Beckwith, Rasmus Beck, Jasper Anderson, G. H. Gray, John Nelson, E. T. Foss, and D. E. Baker.

CARLOTTA

The greatly increased activity of production along every line, the extension of railroads in the County's border, and the influx of people from the outside, have led to the establishment of new and additional centers of trade. One of these is the Town of Carlotta, beautifully situated in the valley of the Van Duzen River, at the present terminus of the S. F. & N. W. R. R. at that station. The extension of this railroad last year from Burnell's to a point just across the Yager Creek where the junction of a branch line extending up the Yager intersects the Van Duzen line of their road and within a short distance of John M. Vance's elegant country home, marks the point where Mr. Vance laid out a town and at once started the work of development and improvement in a substantial manner. A splendid three-story hotel and a store building, with hall above, have been completed (pictures of which appear upon another page). A large livery and feed stable is in course of construction; streets are graded and sidewalks are being laid; waterworks installed and water mains laid and nearly one thousand feet of sewer pipe used to give the town adequate sewerage to insure its healthfulness.

The Fortuna Merchandising Company, a wide-awake firm, seeing the advantages of the location, has started a general merchandise store here and although open but a few months is doing a large business.

Carlotta is the most accessible trading point for all the territory of the Van Duzen and Yager Valleys, and also for the hill country for many miles beyond.

The town has a picturesque site and a climate far superior to that which obtains closer to the bay and ocean. It is sheltered from the harsh winds and fogs; at its door lies the Van Duzen River and Yager Creek, filled with excellent fish, and within a few miles distant is a splendid game country. On account of its location, it promises to become one of the chief summer resorts of the County, as well as one of the busy centers of trade.

The town was named in compliment to Mr. Vance's youngest daughter.

STRONG'S STATION.

Ten miles beyond Hydesville, on the Van Duzen and nestled in the heart of the redwoods, is Strong's Station, so called because it is a stopping place on the Overland stage line. G. W. Byard is the proprietor, and the place is the most popular summer resort for Eel River Valley residents. The Van Duzen river furnishes magnificent fishing and a few miles back the hills are full of deer.

LOLETA.

Loleta is one of the youngest of the Eel River Valley towns and is the first station on the S. F. & N. W. R. R. after passing through the Table Bluff tunnel. Its location is on the north side of the valley, slightly above the bottom land level, almost abreast of Ferndale. At this place a large portion of the lower section of the valley and what is known as the Island, ships its product over the railroad. Besides being the shipping point for a large portion of the Ferndale section, it is the business center for quite a large and prosperous creamery country on the north side of the river and reaching the ocean, embracing the Table Bluff range of hills. It is served with postoffice, telephone and telegraph, has hotels, several stores, churches and fine school house. The principal store is that of Dickson & Dickson, as shown in one of the illustrations in this publication.

ROHNERVILLE.

Rohnerville is the oldest center as a town, in Eel River Valley. It is located a mile and a half from the river, about one mile from the railroad station, and is about 300 feet above the bottom level, on the first table or bench, or just at the shoulder of the rolling foot-hills and is twenty-two miles from Eureka. The main county road southward leads through it, and it is served with daily mail, telegraph and telephone. It has three churches and good school accommodation. The hills rise quite abruptly on the northerly side, and the timber is within a quarter of a mile of the town and runs back into the great redwood belt. But at the base of the steeper hills, its immediate surrounding is rolling land, soon descending somewhat and leveling out on to the first bench above Eel

River bottom. The immediate neighborhood is devoted mainly to hay, grains and fruits.

ALTON.

Alton is a thriving junction town of several hundred inhabitants. It lies at the point where the Van Duzen river empties into Eel River. From Alton, one line of the S. F. & N. W. R. R. runs to Scotia up main Eel River. Another line runs to Carlotta, up the Van Duzen river. M. P. Hanson is one of the principal business men of Alton, owning and operating both a general merchandise store and a livery stable.

SCOTIA.

Situated about seven miles above the confluence of the Eel River with the Van Duzen, on a level bottom that a few years ago was covered with a dense growth of redwood of largest dimensions, is the lumbering town of Scotia. Built entirely by reason of the operation of the Pacific Lumber Company, it is essentially a lumbering town. The mill has a capacity of 250,000 feet of lumber daily. Seven Hanson machines, two hand machines, and two shake machines are in constant operation. The place is served with postoffice, telegraph and telephone, light and water system, church and good school house. Being sheltered from the coast winds and fogs, it is several degrees warmer than towns nearer the coast. It is about thirty-five miles from Eureka.

TRINIDAD.

Trinidad is the oldest inhabited point in the county, having been settled early in 1850. The town lies on a high bluff, several hundred feet above the beach, and at one time was a busy lumbering town. Latterly it has been the shipping point for shingle mills. It has mail, telegraph and telephone communication and is a station for the stage from Arcata to Crescent City. As a seaport it is one of the most sheltered open roadsteads on the coast; has thirty-nine to fifty feet of water along side the wharf and with a comparatively small outlay could be made a safe harbor of refuge.

BRICELAND.

Briceland may be considered the center of oil-boring operations of southern Humboldt, and is situated at the south-

ern end of Elk Ridge. It is in the heart and center of the oil district of southern Humboldt. It has a postoffice, hotel and several stores, and has a promising future before it. The contiguous country furnishes immense quantities of the finest tan bark. A company has established, at a cost of \$25,000, a plant for extracting the active principle of the bark.

GARBERVILLE.

On the South Fork of Eel River, elevated on a bench three or four hundred feet above the bed of the river, on its eastern side, and within eight miles of the Mendocino line is Garberville, the second oldest town in southern Humboldt. Like Briceland, eight miles to the westward, it is in the midst of a belt rich with indications of petroleum, and is also surrounded by a fine stock country.

PETROLIA.

Petrolia, situated at the junction of the North Fork with the main Mattole river, about four miles, air line, from the ocean beach, is fifty-six miles from Eureka. The surrounding country is almost wholly devoted to stock—cattle, sheep and hogs. It is a fine fruit country, and enjoys the distinction of being able to pluck the first premium on apples whenever exhibited at the State Fair. But the difficulty and expense of marketing the fruit has prevented the planting of large areas to fruit.

ORLEANS.

Orleans is one of the old Klamath River mining towns, located on the river within ten miles of the northern boundary.

At this point the rough, high mountains seem to fall back, and broad, uneven bar and bench country obtains from half a mile to two miles in width. It is essentially a mining town, is served by mail twice a week and is reached by pack trail. There is much mining done along the bars and benches near the town, and it is the supply place for a wide range of both placer and quartz country north, south, east and west.

HOOPA.

Hoopa, or perhaps more properly Hoopa Valley, the Indian Reservation, lies on the Trinity river about eight miles below its junction with the Klamath. No fairer spot, or more pleasing picture does nature present on the Pacific Coast than this restful valley amid the mountains. Nowhere does nature present a fairer face or more seductive form. At present the lands have been divided in severalty among the Indians; a large school for Indians is maintained by the government, under a superintendent and corps of teachers.

RIO DELL.

Situate across Eel River from Scotia, a mile to the westward, is a charming location on an open prairie land, facing the river, with a high, wooded hill for a back ground; sheltered from the wind, sunny and pleasant, it is an attractive resting and outing resort.

Bridgeville is where the roads meet from Eureka via Kneeland, from Trinity, from Mendocino via Blocksburg, and from Eureka via Hydesville. Besides the mail, the place has telegraph communication, hotel, store, and is a thriving town.

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